

INTERNATIONAL TELECOMMUNICATIONS ISSUES

HEARING
BEFORE THE
SUBCOMMITTEE ON COMMUNICATIONS
OF THE
COMMITTEE ON COMMERCE,
SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE
ONE HUNDREDTH CONGRESS
SECOND SESSION
ON
INTERNATIONAL TELECOMMUNICATIONS ISSUES

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INTERNATIONAL TELECOMMUNICATIONS ISSUES

TUESDAY, APRIL 19, 1988

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
SUBCOMMITTEE ON COMMUNICATIONS,
Washington, DC.

The subcommittee met at 9:06 a.m. in room SR-253, Russell Senate Office Building, Hon. Daniel K. Inouye presiding.

Staff members assigned to this hearing: Tom Cohen and John Windhausen, staff counsels; and Gina Keeney, minority staff counsel.

OPENING STATEMENT BY SENATOR INOUE

Senator INOUE. About a year ago I began my tenure as Chairman of the Communications Subcommittee by holding an oversight hearing on international telecommunications. It was clear to me at that time that the dramatic growth in our telecommunications market was being mirrored internationally and that the United States had to ensure our interests were effectively advanced.

The purpose of that first meeting was to educate the members of this subcommittee on these matters and their importance and to determine what issues the subcommittee should explore in depth.

Shortly thereafter, the subcommittee began its examination of international satellite issues. I expect to conclude this examination with a report later this year.

At least year's hearing I also stated that because of the gravity of the issues of international telecommunication, the subcommittee would hold regular oversight hearings. That is the purpose of this morning's hearing.

Over the past year we have seen the international telecommunications environment change greatly. Trade legislation that was only beginning has reached the final stages. I hope we can have it signed into law shortly.

The telecommunications trade deficit figures just released last week show that the United States has a continuing and very serious problem, and this legislation will be of significant help.

Of particular importance and interest for this subcommittee is the fact that the Congress and the administration have reached agreement on including sector-specific provisions in the area of trade in telecommunications. These provisions were originally proposed by the ranking member of the committee, Senator Danforth, and co-sponsored by many of us.

Once the trade legislation is signed into law, we can then turn to ensuring that these provisions are properly administered and effectively enforced.

Also on this trade agenda is the Free Trade Agreement with Canada. This agreement which will soon come before the Congress for a vote has mixed results for the U.S. telecommunications industry. Our negotiators were successful in phasing out tariffs entirely. They were not successful in opening the procurement practices of the dominant telephone company in Canada, Bell Canada.

They were successful in reaching a first trade and services agreement in the area of information services; however, they were not successful in extending the reach of this agreement to basic telephone services.

Another trade agreement also deserves attention. Last year the United States successfully completed an agreement with Japan concerning the use of international private lease telecommunications circuits. This would facilitate the operation of international value-added networks.

Despite the success, there have been problems in the actual workings of the agreement. We are currently trying to resolve a dispute with Japan about whether these value-added networks may use private protocols. Our representatives have strongly argued that these must be permitted but so far without success.

I wish to assure everyone that the subcommittee will be watching this matter closely to ensure United States interests are protected.

Anyone who has been involved with international trade knows that the only agreements that count are the ones that work in practice.

Significant changes also occurred concerning the conferences of the International Telecommunications Union. Major conferences such as the high frequency and mobile services meetings have been completed with varying degrees of success of the United States.

Other major meetings such as this summer's conference on the use of geostationary orbital arc and this December's World Administration Telegraph and Telephone Conference are nearing and pose serious concerns for United States interests.

In the international satellite area, the United States separate system policy received a recent boost. As a supporter of this policy I was heartened to see officials in the United Kingdom announce that customers in that country would be permitted to access these satellites. I look forward to this policy working in practice.

I have an opening statement the Chairman, Senator Hollings, would like to have included in the record.

[The statement follows:]

OPENING STATEMENT BY THE CHAIRMAN

I want to congratulate the Chairman of the Subcommittee, Senator Inouye, for continuing to focus our attention on an area of primary importance to the United States—competitiveness in international telecommunications. At last year's hearing on this subject, I spoke about the need to get a competitive trade policy. We spend far too much time debating the old concepts of free trade and fair trade, when what we need is competitive trade. Other countries around the world understand this. Trade is a dynamic that does not just involve industries; it involves governments. And we must get our government in to play the game.

I can tell you that the British understand this. They effectively used their government, all the way up to the Prime Minister, to help one of their companies gain

access to the Japanese telecommunications market. Japan, in turn, understands it, as do the French, the Germans, the Canadians, and everyone else.

I was glad to see over this past year that at least we are beginning to get into the game in international telecommunications. All of you testifying before us today have been working to ensure that our separate satellite systems could land overseas. About a month ago, we saw that this work paid off, with the British adopting a new policy permitting their customers to access our alternative satellite providers. This is what we need more of: a government-industry partnership that competes in world trade.

I look forward to discussing with the witnesses how we can continue in this direction. Thank you.

Senator INOUE. The agenda for this morning's hearing spans these issues and much more. Testifying before the subcommittee this morning will be the same panel of officials that appeared a year ago, although with three new faces. Only the Assistant Secretary of Commerce, Mr. Sikes, was here last year.

I wish to welcome all of you, and I look forward to your testimony.

The panel of witnesses testifying here today consists of the Chairman of the Federal Communications Commission, the Honorable Dennis Patrick; the Assistant Secretary for Communications and Information, the Honorable Alfred Sikes; the Acting Coordinator and Director of the Bureau of International Communications and Information Policy of the State Department, the Honorable Parker Borg; and the Deputy Assistant for Trade, our U.S. Trade Representative for Industry, Ms. Marian Barell.

May I first call upon Chairman Patrick of the FCC.

Excuse me. I am sorry. Before we proceed, Senator Packwood.

Senator PACKWOOD. I have no opening statement, Mr. Chairman. Thank you.

STATEMENT OF HON. DENNIS R. PATRICK, CHAIRMAN, FEDERAL COMMUNICATIONS COMMISSION

Mr. PATRICK. Mr. Chairman, it is a pleasure to appear before you this morning to discuss international telecommunications policy and the activities of the FCC as it relates to the same.

Our overriding goal in international telecommunications is, of course, to maximize the benefits the public derives from our nation's communications and facilities and services. We believe that the welfare of U.S. consumers will be promoted most effectively if international telecommunications services are provided in an environment that is as competitive and open as possible.

The FCC policy has focused principally on the development of a competitive U.S. telecommunications marketplace. This has provided foreign telecommunication firms with many opportunities to compete on equal terms with domestic firms in U.S. markets.

In many other countries, however, U.S. firms are not provided with a fair opportunity to compete. We share the concern of Congress and the Executive Branch over this lack of reciprocal treatment. As a result, we have supported the efforts of the Executive Branch to expand opportunities for U.S. telecommunications firms in countries that have been the subject of significant U.S. trade concern.

We have also held telecommunications policy discussions over the past year with the Governments of the United Kingdom, the Netherlands and France in an effort to strengthen our bilateral re-

lationship with these countries and to increase opportunities for U.S. firms in these important markets.

In addition, we have sought to consider the regulatory implications of the current openness in U.S. markets and the less open nature of telecommunication markets in other countries by initiating a proceeding to examine the interrelationship between foreign telecommunications policies and our own regulatory policies.

We recently took a first step to address these issues: the adoption of reporting requirements. This information will not only enable us to make an informed judgment as to whether the public interest requires additional regulatory action but should also prove useful to Congress and the Executive Branch as you consider international telecommunications trade policy issues.

We are encouraged that there has been some movement towards the liberalization of international telecommunications policy in several countries in the last year that have resulted in part from U.S. Government efforts.

Last year, for example, the FCC, NTIA and the State Department made it clear to the West German government that we were deeply concerned about the inability of U.S. voice carriers to obtain operating agreements from the Bundespost to provide international telephone service. Subsequently, the Bundespost decided to take an important initial step by offering operating agreements to two additional U.S. carriers.

We are also extremely encouraged by the further liberalization of British telecommunications policies evidenced by the statement of OFTEL's Director General Brian Carsburg, on the PANAMSAT complaint against British Telecom which, mentioned, Mr. Chairman.

The promise of two-way traffic on U.S. separate satellite systems between the U.S. and the U.K. is a significant step in the realization of U.S. separate satellite systems policy.

We have a growing concern, however, with the negative implications for U.S. consumers that may arise from the fact that the U.S. net outflow in international voice and telex traffic revenues has increased from about 78 million in 1975 to 1.2 billion in 1986. We have, therefore, directed the chief of our Common Carrier Bureau to study this question and to report to the Commission with a recommendation on what, if any, regulatory action we should consider to bring about lower international accounting rates for international telecommunications services originating or terminating in the United States.

We see no present or future need, however, for certification, registration, tariffing or other unnecessary regulatory requirements for the provision of enhanced services internationally, and we have worked with USTR, NTIA and the State Department in bilateral discussions with Canada, Japan and the United Kingdom to make clear the U.S. interest in equality of opportunity for U.S. enhanced service providers.

The United States must also seek to promote equality of opportunity for U.S. firms through active participation in multilateral for a, particularly the ITU. That has been our focus in the two very important ITU activities which will take place this year,

SpaceWARC and the World Administrative Telegraph and Telephone Conference or WATTC 1988.

The SpaceWARC conference will address the use of the geostationary orbit, as you indicated Mr. Chairman, and recently the Commission made its recommendations for this conference, addressing the important issues in both the fixed satellite service and the broadcasting satellite service as well.

WATTC 1988 is a conference at which ITU members will consider proposals for a new regulatory framework for telecommunications services very broadly. We have received public comments on an inquiry we instituted to prepare for WATTC 1988, and we are evaluating them now.

I thank you again, Mr. Chairman and members of this subcommittee, for this opportunity to discuss these very important international telecommunication policy issues. We look forward to continuing to work with you and your staffs to promote a more open and competitive international telecommunications environment.

Thank you, Mr. Chairman.

[The statement and questions and answers follow:]

STATEMENT OF HON. DENNIS R. PATRICK, CHAIRMAN, FEDERAL COMMUNICATIONS COMMISSION

Mr. Chairman and Members of the Subcommittee: It is a pleasure to appear before you this morning to discuss international telecommunications policy and the activities of the Federal Communications Commission.

We appreciate the interest of the Subcommittee in our efforts to promote a more competitive international telecommunications environment. Our overriding goal in international telecommunications as in other areas, in compliance with the statutory mandate set forth by the Congress, has been, and will continue to be, to maximize the benefits the public derives from our Nation's communications facilities and services. Consumer welfare and the public interest is, and must be, the basis for our deliberations. Indeed, as I stated in testimony before this Subcommittee last year, I believe that while markets and competition will usually serve customers better than regulation, it is important to keep in mind that competition and deregulation are only means to our ultimate end: the promotion of consumer welfare. We believe that the welfare of U.S. consumers will be promoted most effectively if international telecommunications services are provided in an environment that is as competitive as possible.

In this context, we believe that traditional approaches should be revisited in order to assess their applicability to a rapidly changing world economy in which an increasing portion of all economic activity is international in scope, and involves the collection, analysis, and dissemination, as well as the transport, of information. Telecommunications has played, and continues to play, a critical role in our nation's economic development. As a result, I welcome this timely opportunity to discuss the important issues targeted by the subcommittee for this hearing.

INTERNATIONAL TELECOMMUNICATIONS AND MARKET ACCESS

The first area I would like to address is the interrelationship of U.S. telecommunications policy and U.S. telecommunications trade policy. U.S. telecommunications policy, with our focus on the development of a competitive U.S. telecommunications marketplace, has provided foreign telecommunications firms with many opportunities to compete on equal terms with domestic firms in U.S. telecommunications markets. In many other countries, however, U.S. telecommunications service providers and equipment manufacturers are not permitted to operate at all or are not provided with a fair opportunity to compete. We share the concern of the Congress and the Executive Branch over this lack of reciprocal treatment.

As a result, we have supported, and will continue to support, the efforts of the Executive Branch to expand opportunities for U.S. telecommunications equipment manufacturers and service providers in countries that have been the subject of significant U.S. telecommunications trade concerns. We provided technical assistance to the Executive Branch, for example, in the context of the so-called Market Orient-

ed Sector Selective (MOSS) discussions with Japan and to the National Telecommunications and Information Administration (NTIA) in the context of the so-called Market Access Fact Finding (MAFF) discussions with the Federal Republic of Germany.

We believe that it is also important to recognize and work closely with countries that are seeking to liberalize their domestic telecommunications regimes. As a result, we have held telecommunications policy discussions over the past year with the governments of the United Kingdom, the Netherlands, and France in an effort to strengthen our bilateral relationship with these countries and to increase opportunities for U.S. firms in these important telecommunications markets. These comparative telecommunications policy discussions have provided the opportunity for a focused and constructive dialogue on the mutual benefits that may be realized from the liberalization of national and international telecommunications policies.

We have also sought to consider, however, the regulatory implications of the current openness in the U.S. market and the less open nature of telecommunications markets in other countries. Specifically, in December 1986, we initiated a proceeding to examine on a comprehensive basis the interrelationship between foreign telecommunications policies and practices and our own regulatory policies. We requested comment on such issues as the effect of foreign administrations' refusals to grant operating agreements to U.S. carriers or the service restrictions of foreign Postal Telegraph and Telephone (PTT) administrations on U.S. telecommunications service providers and U.S. consumers. We also invited comment on the effect of restrictive foreign standards-setting and procurement practices on U.S. industry and U.S. consumers.

In light of the comments we received, we recently concluded that we must take the first step required to address these issues—that is, the adoption of certain reporting requirements. Specifically, we amended our rules to require that: (1) all interexchange carriers and all local exchange carriers that have common carrier operations revenues exceeding \$100 million annually file Annual Procurement Reports, beginning July 1, 1988, on their procurement of core equipment during the preceding calendar year; (2) all foreign-owned carriers offering U.S. domestic interstate common carrier services file revenue and traffic reports on a quarterly basis beginning July 1, 1988; and (3) all foreign-owned carriers that initiate domestic common carrier services within the United States after July 1, 1988, notify the Commission within thirty days of their commencement of service. This information will not only enable us to assess more accurately the participation of foreign firms in the U.S. telecommunications market and to make an informed judgment as to whether the public interest requires additional regulatory action by the Commission, but we believe should also prove useful to the Congress as you consider U.S. international telecommunications and telecommunications trade policy issues.

We continue to believe that our nation as a whole has benefited from the pro-competitive policies of the United States government and from the participation by foreign-owned telecommunications firms. Moreover, we are encouraged that there has been some movement towards the liberalization of traditional international telecommunications policies in several countries in the last year that have resulted, in part, from U.S. government efforts. Last year, for example, the FCC, NTIA, and the State Department made it clear to officials of the Deutsche Bundespost (the West German PTT) that we were deeply concerned about the inability of U.S. voice carriers to obtain operating agreements from the Deutsche Bundespost to provide international telephone service between the United States and West Germany despite vigorous efforts by U.S. carriers to obtain such agreements.

We believe that the Bundespost's subsequent decision to offer operating agreements to two additional U.S. carriers is an important initial step in ensuring that all consumers in the United States have an unfettered opportunity to telephone business colleagues, family and friends in West Germany. We also believe the Bundespost decision demonstrates the importance of making sustained and coordinated efforts to strengthen the telecommunications relationship between the United States and our most important telecommunications partners.

We recognize, of course, that U.S. telecommunications service providers continue to be subject to restrictive international telecommunications policies. As a result, we have adopted two policies that have become a fundamental part of U.S. international telecommunications policy. First, our international competitive carrier policy treats foreign-owned carriers as dominant for the provision of international telecommunications services, originating or terminating in the United States. This policy subjects foreign-owned carriers to the full panoply of traditional facilities licensing and tariffing requirements. Second, our international settlement policy requires that carrier operating agreements stipulate: (1) uniform accounting rates (the nego-

tiated rate of reimbursement for service that is shared by originating and terminating carriers); (2) uniform terms for the sharing of tolls (the percentage of the accounting rate to be allowed each entity); and (3) uniform settlement rates (the currency conversion rate used to arrive at the currency stipulated in the operating agreement). This policy precludes foreign telecommunications administrations, which are typically monopoly service providers in their home markets, from obtaining unduly favorable settlement agreements with U.S. carriers by exercising their monopoly power against U.S. carriers in a process known as "whipsawing."

MARKETPLACE TRENDS AND INTERNATIONAL ACCOUNTING RATES

We also recognize that we must be willing to adapt our policies to the changing face of international telecommunications in order to protect the interests of U.S. consumers. To do this, we must stay fully informed of significant trends in the international telecommunications marketplace.

One trend that we have identified is that revenues for overseas service originating or terminating in the United States increased by \$1.74 billion from 1975 to 1986 (\$862 million to \$2.6 billion). This significant increase in revenues has resulted from substantial growth in international traffic volume caused, in large part, by reductions in international message telephone rates for service that originates in the United States and the stimulating effects of our pro-competitive policies. We have not seen a similar reduction, however, in the international accounting rates that U.S. carriers pay to terminate international telephone service in foreign countries. Moreover, rates for international telephone service that originates in other countries do not appear to be as low as for international telephone service originating in the United States. As a result, demand for service to the United States may be depressed. These two factors, along with the declining value of the U.S. dollar, have exacerbated the net revenue outflow paid by U.S. carriers to their foreign correspondents.

Our records demonstrate that the U.S. net outflow in international telecommunications services increased from \$78.3 million to \$1.2 billion from 1975 to 1986. At the same time, the share of revenues paid by U.S. carriers to foreign PTTs for service that originated in the United States increased from 51.4 percent in 1975 to 72.4 percent in 1986. Thus, in 1975, 51 cents of each dollar collected from U.S. consumers for international service was paid to foreign PTTs. By 1986, this payment had increased to 72 cents for each dollar.

We are increasingly concerned that above-cost international accounting rates and the U.S. net outflow in international telecommunications services may represent an "overpayment" by U.S. carriers and U.S. consumers to foreign PTTs for the termination of outgoing U.S. international message telephone traffic. Moreover, in light of the substantial revenues that international accounting rates often generate for foreign PTTs, we are particularly concerned that a substantial portion of the revenues that foreign PTTs receive from U.S. carriers may be used to subsidize the restrictive telecommunications policies and practices of these monopoly providers of national telecommunications services.

To address this growing concern, in our recent Report and Order and Supplemental Notice of Inquiry in CC Docket 86-494, the Commission directed the Chief of our Common Carrier Bureau to undertake a study of this issue and report to the Commission in a timely fashion with a recommendation of what, if any, action the Commission should consider to bring about lower international accounting rates for international telecommunications services originating or terminating in the United States. The Commission also invited parties to submit comments on the cost characteristics of international accounting rates and the interrelationship between international accounting rates and national collection rates. We continued by noting that the U.S., in fact, had a substantial deficit for overseas voice telephone service in 1986, with several countries, such as the Federal Republic of Germany, Japan, and South Korea, that have been the subject of significant U.S. trade concerns. As a result, we invited parties to comment on the implications that above-cost international accounting rates may have on U.S. market access concerns.

It would be premature to draw definitive conclusions before the Bureau has had a full opportunity to study international accounting rates and there is an opportunity for public comment on these complex issues. We are confident, however, that the Bureau study on international accounting rates, the comments we receive in response to our inquiry, and the reporting requirements we have adopted with permit us to provide more detailed information to the Congress concerning the carriers under our jurisdiction and to determine whether we should, consistent with our

statutory mandate concerning the provision of efficient and equitable services at just and reasonable rates, propose additional regulatory action.

INTERNATIONAL FACILITIES

Of course, we will continue to seek to lower the costs associated with the provision of international facilities used to provide international telecommunications services by promoting open entry for separate satellite providers and private cable facilities. We fully recognize, however, that in contrast to the provision of domestic telecommunications services, international telecommunications services are typically provided through a cooperative venture of telecommunications entities in two or more sovereign states. U.S. firms that wish to provide private international telecommunications facilities have faced, and continue to face, a variety of telecommunications structures and regulatory philosophies that have made, and continue to make, progress in this area difficult.

As a result, we are extremely encouraged by the further liberalization of British telecommunications policy that is evidenced by the Statement of the highly respected Director General of the Office of Telecommunications (OFTEL), Professor Bryan Carsberg, on PanAmSat's complaint against British Telecom (BT) concerning BT's alleged refusal to interconnect PanAmSat's international traffic to and from the United Kingdom. Professor Carsberg's Statement makes clear BT's obligation to provide uplink services to customers in the U.K. who wish to use PanAmSat's satellite at prices that do not involve abuse of monopoly power. Professor Carsberg's Statement also establishes that PanAmSat will be able, in certain circumstances, to act as its customers' agent for the purpose of gathering orders and communicating them to BT. Furthermore, he indicates that, in certain circumstances, U.K. customers may have uplink facilities on their own premises to gain access to PanAmSat's satellite.

We believe that the promise of two-way traffic on U.S. separate satellite systems between the U.S. and the U.K. is a significant positive development in the realization of U.S. separate satellite systems policy. As a result, I am pleased to report that PanAmSat and the staffs of the three agencies that have been responsible for the development of U.S. separate satellite policy—the National Telecommunications and Information Administration (NTIA), the Bureau of Communications and Information Policy (CIP) of the Department of State and the FCC—are not engaged in the preparation of drafting the material that we hope will be jointly submitted by the U.S. and the U.K. to Intelsat to initiate Article XIV(d) consultation procedures for PanAmSat.

CIRCUIT DISTRIBUTION POLICIES

We believe that U.S. international telecommunications policy should also firmly recognize the interest of the more established U.S. carriers in making facilities and service decisions free from unnecessary regulation. Toward that end, in 1987, the Commission released a Notice of Proposed Rulemaking initiating CC Docket No. 87-67 to consider policy alternatives for distribution of U.S. international carrier circuits among available facilities after 1988. Specifically, the Commission requested comment on policy options that would allow us to move away from the imposition of regulatory guidelines for AT&T. Subsequently, Comsat and AT&T reached agreement relating to AT&T's worldwide use of INTELSAT capacity for circuits activated through 1994. The agreement established (1) a set of commitments relating to AT&T's worldwide use of Comsat's INTELSAT space segment capacity for International Message Telephone Service (IMTS) circuits activated through 1994 and (2) a framework for discussions and exchanges of information that will provide a basis for AT&T's further use of Comsat's INTELSAT space segment capacity after 1994. Comsat and AT&T jointly requested the Commission to find that the agreement is consistent with the public interest and to rely upon it as a basis for withdrawing all circuit distribution guidelines affecting the distribution of AT&T's IMTS circuits.

On March 24, 1988, the Commission decided to end the imposition of circuit distribution guidelines on AT&T. We concluded that under the AT&T-Comsat agreement INTELSAT will be assured of a substantial amount of AT&T traffic that Comsat believes will provide a firm basis for INTELSAT's operations during the period of the agreement. Equally important, the agreement provides incentives for both INTELSAT and Comsat to adapt to an increasingly competitive environment in the provision of international transmission facilities.

The Commission's decision removes circuit loading decisions from the regulatory arena and moves them to the marketplace where they properly belong. Allowing carriers to make independent decisions about their business requirements will bene-

fit consumers in the form of continued availability of high quality communications services at reasonable prices.

ENHANCED SERVICES

We also believe that U.S. international telecommunications policy and telecommunications trade policy should reflect longstanding U.S. policy concerning the provision of enhanced services. The U.S. has traditionally permitted both domestic and foreign firms to offer enhanced services free from certification, registration, tariffing, and other unnecessary regulatory requirements. Indeed, we continue to believe that the primary catalyst for the liberalization of enhanced services in other countries will be the success of the U.S. experience and, over time, of other liberalized markets. As a result, we have focused, and will continue to focus, our activities on the continued development of competitive opportunities for enhanced service providers in the U.S., the refinement of the regulatory provisions that we have established for the offering of enhanced services by communications common carriers, the pursuit of pro-competitive policies that lower the cost and the price of basic international telecommunications services, and the promotion of liberalized policies for the provision of enhanced services internationally.

We provided substantial technical support, for example, to the Office of the United States Trade Representative (USTR) in discussions that led to the inclusion of an enhanced services annex to the U.S.-Canada Free Trade Agreement. We have also provided technical support for NTIA-led discussions with the government of Japan on so-called international value-added network services (IVANS) that have taken place in the context of the MOSS talks. I will defer to my colleagues from USTR and NTIA to provide you with a detailed analysis of the history and outcome of these discussions.

I am also happy to defer to Parker Borg of CIP to update the Subcommittee on the discussions that CIP, NTIA, and the FCC have had with the British government over the past year in an effort to reach agreement on a proposed U.S.-U.K. arrangement, as required by British law, that would allow U.S. firms to begin providing so-called "value-added and data services" over private leased lines between the United States and the United Kingdom. I believe it is important to emphasize, however, that while the Commission welcomes the interest of the United Kingdom in expanding the uses of private leased lines between the U.S. and the U.K., we believe that an important aspect of any arrangement with the U.K.—or any other country—should be to make clear the U.S. interest in equality of opportunity for U.S. enhanced service providers.

INTERNATIONAL CONFERENCES

The U.S. must also seek to promote equality of opportunity for U.S. firms through active U.S. government participation in multilateral forums, particularly the International Telecommunication Union (ITU). The ITU is the United Nations specialized agency responsible for international telecommunications matters. The United States is one of 164 member countries currently in the ITU, having ratified the International Telecommunications Convention establishing the Union. Among the most important activities of the ITU are the modification, revision, and amendment of the Administrative Regulations that govern the provision of telecommunications services between countries. The regulations include the Telegraph Regulations, the Telephone Regulations, the Radio Regulation, and the Additional Radio Regulations. Both the ITU Convention and the Administrative Regulations are treaty instruments under U.S. law. The legally binding nature of ITU Regulations, and the substantive implications of these Regulations for U.S. international telecommunications policy, make it imperative that the U.S. have expert representation in ITU activities.

Two very important ITU activities will take place this year: the World Administrative Telegraph and Telephone Conference (WATTC-88) and SpaceWARC. WATTC-88 is a conference at which ITU members will consider proposals for a new regulatory framework for telecommunications services. Because of the issues under consideration, the Commission has been an active participant in the preparations for the Conference. The International Telegraph and Telephone Consultative Committee of the ITU—better known by the French acronym CCITT—established a Preparatory Committee for the 1988 WATCC (PC-WATTC). This group was tasked with the responsibility of drafting the proposal for the new Telegraph and Telephone Regulations to be submitted to the IXth Plenary Assembly that will, in turn, submit the draft to WATTC-88.

A senior Commission official co-chaired the special study group—that is, Study Group B—that was established to coordinate U.S. interests in the development of new international Regulations. Moreover, in order to ensure the widest possible participation in the U.S. preparatory effort for the PC/WATTC and WATTC-88, the Commission established an informal Public File concerning the PC/WATTC. Furthermore, after the PC-WATTC adopted its draft of new regulations to propose to the CCITT, we adopted a Notice of Inquiry (CC Docket No. 88-55) seeking public comment on the PC-WATTC report and the accompanying draft regulations. In the Notice, we identified the contentious issues raised in the Final Report:

- (1) Whether the regulations should apply to "any entity" or only to administrations and recognized private operating agencies (RPOAs);
- (2) Whether the regulations would apply to so-called value-added services;
- (3) Whether the regulations should define with specificity the services subject to them;
- (4) What definitions the Regulations should include; and
- (5) What, if any, accounting provisions the Regulations should include.

We just recently received public comments and reply comments in response to our inquiry and we are evaluating these pleadings. We will, of course, make any conclusions that we draw from the comments available to the preparatory process of U.S. WATTC delegation and to the Congress in a timely fashion.

Recently, the Commission made recommendations for the other important ITU World Administration Conference that will take place later this year—commonly known as the SpaceWARC. The SpaceWARC Conference will address the use of the geostationary-satellite orbit and the planning of space services using the geostationary-satellite orbit.

The SpaceWARC Conference results from the 1979 General World Administrative Radio Conference (WARC-79). At that Conference, the participants adopted resolutions calling for a major conference to address equitable access to the geostationary-satellite orbit and spectrum for all countries. A two-part Conference was scheduled for 1985 and 1988 in Geneva. Commission preparations for the First Session of the Conference in 1985 (WARC-ORB-85) included staff participation in various domestic and international preparatory meetings and the adoption of four Notices of Inquiry and a Report and Order to provide recommendations to the Department of State for U.S. proposals and positions.

In preparation for the Second Session, the Commission, in May 1987, issued a Notice of Inquiry regarding the preliminary issues raised by the items on the conference agenda. In addition, the SpaceWARC Advisory Committee composed of industry and government representatives, has submitted two reports offering its suggestions and recommendations. Finally, Commission staff members have participated in various domestic and international meetings in preparation for SpaceWARC. In March of this year, the Commission released a Report and Order presenting our recommendations for the U.S. policy position proposals based on all of these preparatory activities.

The Commission's recommendations address issues in both the Fixed Satellite Service (FSS) and Broadcasting Satellite Service (BSS). The FSS issues addressed by the Commission stem from the decisions made at the 1985 session of the Conference, the WARC-ORB-85. At that conference, the participations adopted a dual approach for allocating FSS frequency bands. For the expansion frequency bands, WARC-ORB-85 adopted an *a priori* allotment plan. For operational bands, WARC-ORB-85 adopted a flexible planning approach using improved regulatory procedures, including a possible multilateral planning meeting of MPM mechanism.

The Commission recommends in its Report and Order that the allotment plan for expansion bands be based on the concept of predetermined arcs that would be selected using specifically designed computer software. We also recommend, the adoption of associated procedures to be incorporated in the international Radio Regulations that address the issues of implementing or modifying an allotment, the status of existing systems, and the formation of subregional systems. The plan will be based on a specific set of technical parameters. Although we did not include these technical specifications as proposals, Commission staff members are currently participating in the U.S. SpaceWARC Conference delegation efforts to develop these standards.

With respect to improved procedures for operational bands, the Commission has recommended that no formal multilateral planning approach be proposed as part of an improved procedures approach for the Fixed-Satellite Service. Because current procedures would allow coordination on a multilateral basis, we believe no additional provisions are necessary. In addition, the implementation of a formal multilateral planning meeting could impede access to the orbit as well as place unacceptable administrative and financial burdens on satellite operators.

With regard to BSS, the Commission has made a number of technical proposals regarding matters such as the submission of feeder link requirements within the 17.3-18.1 GHz band in connection with the Regions 1 and 3 Feeder Link Plan. In addition, the Commission has determined that further study is required of certain allocation issues raised by HDTV and BSS services.

Thank you again, Mr. Chairman and Members of the Subcommittee for this opportunity to discuss these important international telecommunications policy issues. We look forward to continuing to work with you and your staffs to promote a more open and competitive international telecommunications environment.

QUESTIONS OF SENATOR INOUE AND THE ANSWERS THERETO

1. The FCC recently completed its inquiry on trade and international telecommunications. What is the extent of FCC authority to consider trade concerns in establishing communications policy?

The focus of our regulatory mandate under the Communications Act of 1934, as amended, has been and will continue to be the price, variety, quality and technological sophistication of telecommunications goods and services provided to U.S. ratepayers and consumers. On December 23, 1986, the Commission adopted a Notice of Inquiry and Proposed Rulemaking (Notice) in which, inter alia, we raised aspects of this issue. In the Matter of Regulatory Policies and International Telecommunications, Notice of Inquiry and Proposed Rulemaking, CC Docket No. 86-494, 2 FCC Rcd 1022 (released January 30, 1987). The proceeding was initiated to determine whether, in discharging our responsibilities under the statute, the public interest requires that we consider the telecommunications policies of foreign governments in the formulation of U.S. regulatory policies.

To provide an analytic framework for the fundamental policy review we wished to undertake, the Notice was divided into an inquiry and a proposed rulemaking portion. The inquiry focused on the development of an international model based on four objectives: (1) open entry; (2) nondiscrimination; (3) technological innovation; and (4) international comity. The inquiry sought comment on what actions we can, and should, consider to advance these objectives in international telecommunications. The rulemaking portion of the Notice focused on the issue of whether there is sufficient information currently available to U.S. government policymakers to determine fully the extent to which telecommunications entities from countries that engage in restrictive practices that affect U.S. telecommunications entities have benefited from the liberalization of the U.S. telecommunications market.

On March 25, 1988, the Commission adopted a Report and Order and Supplemental Notice of Inquiry, in CC Docket 86-494 (Order). The Commission adopted reporting requirements that are designed to provide the Commission with data on the nature and extent of foreign participation in the U.S. market. We also reaffirmed our tentative conclusion that a determination by this Commission as to whether we should propose actions that limit or liberalize foreign access to the U.S. market would require additional information on the present nature and extent of foreign participation in the U.S. telecommunications market. In the Supplemental Notice of Inquiry portion of the Order, the Commission noted the strong interest expressed by the Executive branch in the establishment of Commission procedures that provide for routine consultation with the Executive branch with respect to trade policy and the need for Commission procedures to address trade issues as they arise. As a result, it requests comments on the most appropriate procedural mechanism or mechanisms for its consideration of the regulatory implications of restrictive foreign standards-setting and procurement

practices on the price, quality, and technological sophistication of telecommunications goods and services offered to U.S. consumers.

We concluded in the Order that specific statutory provisions, such as Section 214, as well as our general mandate, including our duty to report to Congress under Sections 215(a), provide us with the legal authority to establish the information reporting requirements provided for in the Order. The Commission will address many issues remaining in the docket, including issues related to this question, based on comments and data obtained through reporting requirements and the Supplemental Notice of Inquiry.

2. As part of the Commission's recent decision in trade and international telecommunications, the Chief of the Common Carrier Bureau was ordered to do a study on international accounting rates. If this study concludes that the current rates are not in the best interests of the U.S., what actions could be taken in response?

The Commission is increasingly concerned that above-cost accounting rates and the depression of traffic volumes caused by high collection rates in other countries may serve as a significant barrier to entry for smaller or newer U.S. telecommunications service providers and may result in unnecessarily high charges to U.S. ratepayers for international service. Moreover, above-cost accounting rates may be related to the dramatic changes in traffic distribution and net revenue outflows from the U.S. that we have seen, which may adversely affect the U.S. consumer by raising the cost, and eventually the price, of international telecommunications services originating from or terminating in the U.S.

As a result, we believe it is important to study the reasons for the significant increase in recent years in payments by U.S. common carriers to foreign communications entities for the settlement of accounts for international telecommunications services. We have ordered the Chief of the Common Carrier Bureau to undertake a study of this issue and report to the Commission with a recommendation on what, if any, action this Commission should propose to lower accounting rates for international telecommunications services originating or terminating in the United States. We have also invited parties to submit comments on the cost characteristics of international accounting rates, the interrelationship between international accounting rates and national collection rates, and the implications that above-cost international accounting rates may have on U.S. market access concerns.

The Common Carrier Bureau has begun its study of the international accounting rates. Public comments on issues listed above are due on May 20 and replies on June 14, 1988. While it would be premature to comment at this time on what additional regulatory action may be necessary and appropriate, we have already begun the process of consulting with foreign

administrations to seek their views on these issues.

3. With the sale of its earth stations and with the recent loading agreement with AT&T (and the FCC's decision), Comsat's role has changed substantially. What are the INTELSAT functions that Comsat provides today? Since AT&T supplies most of the U.S. traffic to INTELSAT and since the FCC will no longer control loading policy, to what extent will AT&T control the direction of U.S. policy regarding INTELSAT?

COMSAT's primary role remains unchanged -- the provision of space segment services through INTELSAT. In 1987, COMSAT sold a wholly owned subsidiary, COMSAT International Communications, Inc. (CICI) to Contel ASC. CICI had leased space segment from the parent corporation and provided end user services to the public. COMSAT also is currently in the process of selling its interests in a number of earth stations which operate with INTELSAT satellites. What remains within COMSAT is the World Systems Division which provides INTELSAT space segment capacity through the INTELSAT Satellite Services subdivision as well as INMARSAT service through the Maritime Services subdivision. COMSAT also supplies certain services under contract to INTELSAT and INMARSAT through COMSAT Laboratories (research and development) and COMSAT Technical Services (satellite-related technical and consulting services).

The Commission's decision to end circuit distribution guidelines simply removes circuit loading decisions from the regulatory arena and moves them to the marketplace. As a result, U.S. carriers will have greater flexibility to use international facilities, which we believe will benefit consumers in the form of continued availability of high quality communication services at reasonable prices. The Commission's decision will give INTELSAT greater incentive to adapt to an increasingly competitive environment for the provision of international transmission facilities. In particular, INTELSAT will be encouraged to augment its efforts to control costs, improve traffic forecasts, prudently plan for follow-on capacity, and introduce cost-based pricing innovations. We believe that this exposure to competitive pressures will be a more effective mechanism for ensuring high quality service and economically efficient rates for INTELSAT's customers than one that relies on regulatory guarantees of traffic. The Commission has, however, stated that it will monitor AT&T's future facility choices and retain jurisdiction in this area to: (1) ensure continued fulfillment of the objectives of the Communications Satellite Act; (2) preserve the ability of other U.S. carriers to compete in the international communications market; and (3) provide satellite facilities that satisfy national defense and security requirements. Thus, the Commission's decision will not give AT&T control over U.S. policy regarding INTELSAT. That policy will continue to be determined by the FCC, the Department of State, and the NTIA.

4. What is the status of the Commission proceeding on the provision of international aeronautical service?

The Commission has three proceedings dealing with international aeronautical service. The first is Common Carrier Docket No. 87-75, Provision of Aeronautical Services via the INMARSAT System. This docket concerns the United States domestic interface to the aeronautical services likely to be provided by INMARSAT. The Commission issued a Notice of Proposed Rulemaking on this issue in the spring of 1987 and is reviewing comments from interested parties received in the summer and fall of that year. In addition, the Commission is studying the technical and policy implications of INMARSAT aeronautical service as it relates to other proceedings before us described below.

The second proceeding is Common Carrier File No. 1629-DSS-F/L-85, Applications for Authority to Construct, Launch and Operate a Mobile Satellite Service System. In 1986 and 1987, the Commission required a number of applicants for mobile satellite service in the United States to form a consortium and file a single technical proposal for a satellite system. Eight applicants formed the "American Mobile Satellite Consortium, Inc." which filed a business proposal and technical description on February 1, 1988 and a Stockholder's Agreement on May 3, 1988. The business proposal contemplates providing aeronautical services both to points within the fifty states and to certain foreign points. These aeronautical services would be provided on the same frequencies as those proposed by INMARSAT and Avsat (below).

The third proceeding is Common Carrier File No. CSS-87-015(7), Arinc Application for an Aviation Satellite System (AvSat). Arinc in the spring of 1987 filed an application to construct six operational satellites (and one in-orbit spare) to provide aeronautical communications for air traffic control, airline operational and administrative communications, search and rescue services, and passenger voice and data communications. On September 10, 1987, the Commission dismissed Arinc's Avsat application without prejudice. The application was dismissed because it was inconsistent with the Commission's spectrum allocation decision, Second Report and Order, General Docket No. 84-1234, 2 FCC Rcd 485 (1987), and failed to demonstrate that Arinc was financially qualified to provide the proposed services. On October 9, 1987, Arinc filed a Petition for Reconsideration and Reinstatement of Application Nunc Pro Tunc which we are currently reviewing.

5. What is the Commission's policy regarding its authority to review INTELSAT's procurement and pricing decisions? Has the Commission reviewed the pricing policy for INTELSAT's planned domestic service? Are these prices properly covering actual costs?

The Commission does not have authority to regulate directly INTELSAT's procurement and pricing decisions. The Commission does, however, review Comsat applications to participate in INTELSAT procurement decisions and Comsat tariff filings to provide international satellite services via INTELSAT. In addition, the Commission participates with NTIA and the Department of State in the process by which the U.S. government oversees Comsat's role on the INTELSAT Board of Governors (which has primary responsibility for making procurement and pricing decisions for INTELSAT). This process involves the formulation and issuance of instructions to Comsat consistent with the foreign policy, national, and public interests of the United States. These instructions do not necessarily result in action by INTELSAT as a two-thirds majority vote is required on all substantive issues and Comsat has only a 25% voting share.

Pursuant to the instructional mechanism, the Commission has reviewed the pricing policy for INTELSAT's planned domestic services (PDS) since the service was introduced in 1985. At the 65th Board meeting (BG-65) held in December, 1985, the Board adopted a plan to establish two categories of PDS on INTELSAT V series satellites and to set prices for these services. The United States did not support this decision because it did not believe that there was sufficient information to determine whether the prices that were established covered fully allocated costs. In June 1986 at BG-67, the U.S. submitted through Comsat a pricing study prepared by the Commission which provided a range of cost-based prices for INTELSAT V transponders. The U.S. requested that the Board review the study and reconsider its prior decision as to INTELSAT V PDS prices. The Board did not take further action at BG-67. At BG-69 in December, 1986, the Board adopted new PDS prices for the INTELSAT V series. However, the U.S. did not support this decision because it continued to believe that certain of the new prices were not properly based on the costs of providing the services. In September, 1987, at BG-73, the U.S. Signatory submitted proposed PDS prices for the INTELSAT VI series. The prices had prior review and approval from U.S. government agencies, including the Commission. This U.S. Signatory submission was intended to conform with the basic principle embodied in earlier U.S. submissions that prices be based on fully distributed costs. The Director General had previously submitted prices that were substantially lower than those proposed by the U.S. Signatory. The Board decided to defer further consideration until BG-74 in December 1987. At the Board meeting in December, the Commission, through the instructional process, was instrumental in persuading the Board to adopt prices close to the level in the U.S. Signatory paper.

The U.S. position is that certain of INTELSAT's planned domestic services for the INTELSAT V series are being offered below strict, fully distributed cost (FDC). Attached is the U.S. contribution to the 67th Meeting of the INTELSAT Board of Governors comparing INTELSAT's planned domestic service prices at that time with the FDC model. The paper concludes that many of the INTELSAT prices for sales of PDS are below "average total" costs. However, more recently developed prices on the INTELSAT VI series and revisions to the INTELSAT V prices more closely approximate costs.



OFFICE OF
THE CHAIRMAN

FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON

MAY 10 1988

Honorable Robert Packwood
Committee on Commerce, Science, and Transportation
United States Senate
Washington, D.C. 20510

Dear Senator Packwood:

Thank you for your letter of April 22, 1988 concerning steps the Commission has taken to promote competition in the provision of international satellite and cable facilities. I welcome this opportunity to elaborate on the measures the Commission has taken in this regard.

In 1984, the President signed a Presidential Determination that alternative satellite systems were required in the national interest. The Commission subsequently issued the Separate Systems decision wherein we found that the authorization of satellite systems providing international communications services separate from INTELSAT was in the public interest, and concluded that separate satellite systems would provide substantial benefits to users of international services. We continue to believe that the introduction of competition with INTELSAT would provide many of the same benefits to international users that U.S. domestic satellite users now enjoy.

We realize, of course, that U.S. separate satellite system providers have faced and will continue to face difficulties in entering foreign telecommunications markets. As a result, we are very encouraged by the liberalization of British telecommunications policy, as evidenced by the recent statement of Professor Bryan Carsberg, the Director General of Telecommunications for the United Kingdom Office of Telecommunications (OfTel). In his March 22, 1988 statement, Professor Carsberg stated that British Telecom is obliged by the terms of its license from OfTel to provide a customer in the United Kingdom with circuits between the U.K. and a PanAmSat satellite and to convey messages in both directions over those links. I believe that the promise of two-way traffic on U.S. satellite systems between the U.S. and the U.K. is a significant positive development in the implementation of U.S. separate satellite systems policy.

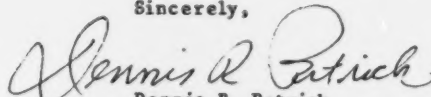
The Commission has also taken steps to promote competition in the ownership and operation of U.S. international earth stations that operate with the INTELSAT global system. Specifically, in our Authorized User decision, we allowed Comsat to provide space segment services directly to users and enhanced service providers and to provide earth station end-to-end service through a common carrier subsidiary.

We have also sought to promote competition in the provision of cable facilities. In our Private Submarine Cable decision, we found that the provision of services over private transoceanic cables would stimulate the development of new technologies and services to the benefit of international communications users. To date, the Commission has granted three licenses to land and operate private international submarine cables, including a trans-Atlantic (PTAT) and a trans-Pacific cable (PPAC or NPC). We believe that these private cables will produce significant public benefits by providing facilities to accommodate the increasing use of digital technology in international communications.

Finally, we have sought to promote competition by freeing U.S. carriers from unnecessary government regulation of facilities and service decisions. For example, the Commission has recently decided to end the imposition of circuit distribution guidelines for AT&T. We concluded that guidelines for AT&T are no longer necessary in view of the successful growth of INTELSAT and AT&T's agreement with Comsat to make substantial use of the INTELSAT satellite system over the next ten years. This decision marks the final step in the Commission's re-examination of loading guidelines. We believe that our action will promote intermodal competition between satellite and cable facilities and, by allowing carriers to make independent decisions about their business requirements, will benefit consumers in the form of high quality communications services at lower prices.

I trust this letter addresses your inquiry. Please feel free to contact me if you have any further questions.

Sincerely,


Dennis R. Patrick
Chairman

Senator INOUE. Thank you very much.
Mr. Sikes.

**STATEMENT OF ALFRED C. SIKES, ASSISTANT SECRETARY FOR
COMMUNICATIONS AND INFORMATION, DEPARTMENT OF COM-
MERCE**

Mr. SIKES. Thank you, Mr. Chairman. NTIA obviously accords great importance to its international communications and information responsibilities, and we appreciate very much this hearing and the change to testify.

Internationally, we pursue a five-part policy program. First, we work to reduce differentials in commercial market access; that is, we try to make sure U.S. equipment and service providers have what the current draft of the trade bill calls mutually advantageous market access.

In this regard, I should note that our interests go beyond simply obtaining national treatment overseas. Many foreign administrations do not allow any competition, local or otherwise. While national treatment is important, in and of itself it may not completely eliminate the long-run competitive risks of persistent asymmetry.

Second, we focus on making sure that International Telecommunications Union actions and regulations are consistent with U.S. national spectrum needs. Spectrum management decisions are not

just technical. They also have major economic and competitive implications.

Third, we expand considerable resources to ensure that international equipment and service standards are openly and fairly reached. Standards-setting has always had an economic quotient, and there seems to be a trend toward more aggressive use of standards to achieve economic goals.

In a world of increasing competition, and one where the U.S. standard is not necessarily the de facto standard, we need to work hard to make sure that our country is not disadvantaged.

Fourth, we have tried to strengthen U.S. competitiveness. NTIA's work on high-definition television is an example. Our initial involvement centered on radio frequency and compatibility issues. More recently, we have studied the potential economic implications of high-definition television and have worked with industry leaders to determine if this transitional period affords the United States a chance to achieve partial renewal of its consumer electronics industry.

We have also been active on international satellite issues to assure continuous strength in satellite communications.

Finally, developing nations are a large potential market for U.S. communications products. Helping them build their communication infrastructure is also important if we want them to become full-fledged U.S. trading partners.

We have been actively involved in the United States Telecommunications Training Institute, and we have worked with other government agencies to survey developing countries' communication needs. We have a special protocol in this respect for the People's Republic of China.

Finally, Mr. Chairman, let me take a minute to go beyond our policies. While progress in resolving the international issues has rarely slipped, gains have been made. There is reason to be more hopeful about our telecommunications trade relationship with the Federal Republic of Germany, for example. The first ever separate satellite system consultation has been accomplished, and its commercial opportunities are expanding.

Agreements have been made to create international value-added networks, although, as you noted, in the protocol area some problems still exist.

In short, while there is much to be done, there has also been concrete progress in accomplishing the Government's goals. Many believe that what has been achieved has opened the door much wider to success.

In my prepared statement, Mr. Chairman, I review each of the areas that were raised in the Committee's letter of invitation and obviously am pleased to discuss any items the Committee would like to discuss.

Thank you.

[The statement and questions and answers follow:]

STATEMENT OF ALFRED C. SIKES, ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION, NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION, DEPARTMENT OF COMMERCE

Mr. Chairman and Members of the Subcommittee:

Thank you for this opportunity to review briefly the plans, programs, and accomplishments of the National Telecommunications and Information Administration (NTIA) in the international communications and information field.

INTRODUCTION AND OVERVIEW

Today, the United States constitutes about 40 percent of rapidly expanding, global communications and information economy—forecast to account for some \$900 billion in worldwide service revenues and equipment sales by the end of next year. This is a market which should hold great promise for the United States, given our national resources. Our traditional technical and commercial leadership in this key "high-tech" sector, however, is being more and more effectively challenged, both at home and abroad.

Meeting this growing challenge will require continued, affirmative Government action. Our domestic communications and information service markets are well-served by private enterprise, guided chiefly by the market mechanisms that have worked so successfully throughout our general economy. Domestically, where regulation is needed as a check on monopoly power, it will remain in place. Less Government intervention into the competitive parts of the communications business, however, has yielded more user choices, more investment and employment opportunities—and benefits for the average consumer.

Internationally, however, too many communications and information service markets still remain closed. Typically, these markets are now served by state-owned or controlled monopolies. Detailed and intrusive government regulation, and excessive competitive controls, are the rule. There have been reforms in some countries—Great Britain and Japan, most notably—and promises of change in others—such as the Federal Republic of Germany. But the fact remains that most communications and information markets overseas are much less hospitable to competition than ours.

Not only are most markets overseas less competitive, but many basic international ground rules—the commercial parameters within which communications and information enterprise must function—are established in government forums. Through the International Telecommunication Union (ITU), for example, governments collectively determine which radio frequencies can be used for what purposes. Through special ITU committees, such as the Consultative Committee on Telegraph and Telephone (CCITT), international service and equipment standards are developed. Some 60 percent of international communications are now provided, moreover, through a treaty-sanction, global satellite monopoly.

NTIA'S FIVE-PART POLICY PROGRAM

We regard our international communications efforts as among NTIA's most important responsibilities. Recent years have also seen a steady increase in the number and complexity of issues we have had to tackle.

In meeting these responsibilities, we have generally pursued a five-part policy program.

ENSURING COMPETITION BY REDUCING MARKET ASSYMETRY

First, we have sought to minimize—and, hopefully, eliminate—both the current and potential problems facing our communications and information businesses due to international "market asymmetry."

Our communications equipment markets are essentially wide open. There are the normal commercial barriers that any company faces whenever it tries to sell into a market—the need to comply with local standards, for instance. But there are almost no Government restrictions. In fact, for large parts of our market, we have affirmative access obligations. Under the 1982 AT&T consent decree, for example, the Bell companies are explicitly required to practice open, nondiscriminatory procurement.

While foreign-based equipment and service vendors thus have every opportunity to compete in our market, too often their own home markets are protected by their own government. Over time, therefore, U.S. companies may be at a competitive disadvantage, and the overall competitiveness of these markets may be placed at unacceptable risk.

A company that can sell into both the U.S. and European markets, or into the Japanese, European, and U.S. markets, will have access to potential economies of scope and scale exceeding those of firms which can sell freely only in the United States. The broader the market access, the greater the sales base across which re-

search and development costs can be amortized. Market access, in other words, is critical to long-run competitiveness and competition.

Fundamental to maintaining the economic strength and competitiveness of American industry in these global markets is reducing market asymmetry. Establishing mutually advantageous market access thus is important, and constitutes one of our central communications policy goals.

ENSURING EFFICIENT SPECTRUM MANAGEMENT

A second major policy goal stems from our statutory responsibility to manage the Government's own use of the radio frequency spectrum and, with the Federal Communications Commission (FCC), ensure efficient and effective U.S. radio spectrum management overall.

How much radio spectrum is allocated to a given communications service—and how it is allocated, whether in one or many blocks—has important commercial ramifications. If land mobile radio spectrum allocations are scattered across the radio frequency band, for instance, that can predetermine whether large-scale production of the associated equipment is possible, as well as how big the particular communications service market using that equipment can grow.

Spectrum management decisions also critically affect the pace of technology. In the case of communications satellites, for instance, how closely satellites are positioned in the orbital arc not only affects the total number of satellites. It also affects the future development of technology. In ITU conferences regarding use of the orbital arc, we have argued for a flexible approach because American technology has continually found effective ways to "squeeze" satellites closer and closer. Rigid spectrum planning would curb or neutralize our current technological opportunities.

SOUND STANDARDS

A third communications policy goal relates to standards development. Here, we consistently have pressed for performance, as distinguished from design standards, plus standards and a standards-setting process that are as "transparent" as possible.

Developments such as integrated service digital networks (ISDNs) present complicated system compatibility issues. The potential is there for standards to emerge which could place U.S.-based firms at a competitive disadvantage internationally. We have and will continue to press for adoption of rules that will maximize the market opportunities available to U.S. firms.

STRENGTHENING AND RESTORING U.S. COMPETITIVENESS

In some key sectors, U.S.-based communications strength is at risk. Our fourth major policy goal is to seek ways of remedying such situations.

In this regard, NTIA has taken several steps in the area of high-definition television (HDTV). This major new service is directly related to our radio frequency management responsibility, given that additional spectrum may be required. We have been working with U.S. industry, as well as the FCC, to ensure that any (HDTV) standard which is adopted furthers the need to make maximum efficient use of the spectrum.

HDTV has other implications because the consumer electronics and the semiconductor industries are closely related. We are working with other Commerce Department and Government agencies to explore steps that could lead to a partial renewal of the U.S. consumer electronics industry.

FOSTERING INTERNATIONAL TELECOMMUNICATIONS DEVELOPMENT

Developing nations represent between one-quarter to one-third of the total world demand for telecommunications products. Efficient and effective telecommunications systems are also key to the growth of their economies. Strong developing country economies mean increased U.S. trade opportunities, in telecommunications as well as other sectors.

NTIA has several programs underway aimed at facilitating telecommunications development abroad. We have a Protocol, or formal exchange agreement, with the Ministry of Posts and Telecommunications of the People's Republic of China, for instance. We are also active supporters of the U.S. Telecommunications Training Institute (USTTI), a Government-private sector initiative that has provided training to dozens of developing country communications officials and technical experts over the past few years. Additionally, with other Commerce Department agencies as well as private industry, we assist in surveying developing country communications needs, and recommending ways of meeting those national requirements.

CURRENT NTIA PROGRAMS AND ACTIVITIES

We have a number of policy programs and activities underway that touch upon and are aimed at implementing these five main international telecommunications and information policy goals.

WATTC

This November, there will be a World Administrative Conference on Telephone and Telegraph (WATTC). Among the issues that will be discussed is the appropriate regulatory treatment of new, international value-added service providers. The United States favors minimal regulation; a number of other countries may press for imposing full-fledged common carrier regulation on these new service providers.

This issue is important because U.S. information service providers currently obtain at least 20 percent of their revenues—forecast to amount to some \$3.2 billion this year—from foreign sources. International regulatory restrictions on such offerings could thus have an adverse impact on our export success in this area.

The principal U.S. objectives with respect to WATTC include:

Adoption of regulations that accommodate diverse national regulatory regimes, which is particularly important since many countries are now considering or undertaking major changes in their domestic regulatory systems to facilitate greater competition;

Ensuring an environment that minimizes regulation of international telecommunications and related services and service providers;

Furthering competitive opportunities in the international communications marketplace;

Encouraging governments to reduce unnecessary restrictions on customer choice; and,

Encouraging the continued development of the international public-switched communications network.

INTERNATIONAL VANS

We have been pressing on a bilateral basis for regulatory reforms that facilitate the growth of international value-added network services (I-VANS). We have been successful negotiating such reforms with respect to Japan, although concerns regarding use of proprietary protocols remain unresolved. More recently, we have worked with other agencies to expand access to the United Kingdom as well, and hope positive results will follow soon.

In discussions with West German telecommunications authorities, we have managed to forestall changes in traditional common carrier pricing policies that could have inhibited the growth of I-VANS. Through a series of "Market Access Fact-Finding" or "MAFF" talks, we have also obtained commitments on the part of the West German Government that domestic regulations will be liberalized to facilitate the development of value-added services in that country.

SPACE WARC

Later this year, the ITU's World Administrative Radio Conference on Space Communications (Space WARC) will resume. Again, the main issue is whether to adopt a rigid, "a priori" planning system for satellite communications services and, again, the United States and other countries are arguing against such an approach, which would tend to freeze the relevant technology, while creating problems with respect to existing U.S. satellite systems.

The United States has two major objectives at this upcoming conference:

First, to ensure that any "guaranteed access" planning system ultimately adopted applies to expansion bands, not those parts of the spectrum which already are heavily used by U.S. commercial and Government systems; and,

Second, assuring the adoption of minimal changes in the Radio Regulations. We believe that a planning system can be developed within the current rules that will both meet the legitimate interests of countries seeking "guaranteed access," while ensuring the flexibility that is needed to facilitate coordination of satellite systems in heavily used frequency bands.

SEPARATE SATELLITES

The President determined in November 1984 that new, U.S.-based communications satellite systems separate from the global system owned and operated by the International Telecommunication Satellite Organization (INTELSAT) are in the na-

tional interest, provided certain criteria are met. Last year, the United States successfully consulted with INTELSAT regarding services that PanAmSat, one of the new satellite entrants, plans to provide between the United States and Latin America.

Recently, PanAmSat proposed to provide certain services between the United States and Great Britain. Other U.S.-based companies may advance similar proposals soon. NTIA and other Administration representatives worked vigorously to encourage the opening of such market opportunities, and are pleased to see this success. We will continue our efforts in other countries as well.

The United States will consult with INTELSAT on this latest service proposal later this year. We will be working to develop the information necessary to demonstrate that this proposal will have no significant adverse effect on INTELSAT, and will take other steps as needed to assure favorable INTELSAT action.

TELECOMMUNICATIONS TRADE

As we documented in the communications trade report that NTIA published last spring, the United States has a severe problem in this key sector. In telephone and telegraph equipment, our \$817 million trade surplus in 1981 deteriorated to a nearly \$2.6 billion deficit last year. In the broader category of "electronics-based products," the \$6 billion surplus we enjoyed in 1981 fell to a \$12 billion deficit last year—about an \$18 billion turnaround.

A number of factors have contributed to this highly undesirable situation, including domestic constraints on several of our leading firms, foreign restrictions on U.S. imports, and part currency imbalances. NTIA has sought to achieve domestic regulatory reforms, and to expand U.S. communications export opportunities overseas.

Some success has been accomplished with respect to Japan's domestic market. There, regulatory change has permitted U.S. firms to enter the value-added services market. Equipment markets have also begun to open, and U.S.-based companies including DSC Communications Corp. have made core network equipment sales. In West Germany, significant changes in domestic regulations have been proposed by the Government, and should be implemented later this year. Through MAFF talks and other discussions, we have sought to correct for the current differential in market access, where foreign-based companies legally have free access to our markets, while U.S.-based firms too often remain locked out abroad. We plan to continue our efforts to increase U.S. market access, as I indicated initially, as part of our overall effort to remedy market asymmetry and its associated problems.

CONCLUSION

That concludes my prepared statement, Mr. Chairman. I would be pleased to respond to any questions that you may have.

QUESTIONS OF SENATOR INOUE AND THE ANSWERS

PEACESAT

Question 1. What is NTIA's plan for re-establishing the Peacesat service in the Pacific? When will NTIA decide which satellite will provide the most efficient service? When does NTIA expect that residents of the Pacific island communities will have access to the Peacesat network?

Answer. NTIA has prepared an overall PEACESAT program plan and is working with the University of Hawaii to conclude an initial cooperative agreement delineating the respective roles of NTIA and the University in the first phase of re-establishing PEACESAT. We are now awaiting information from the University of Hawaii on such items as overhead charges and personnel before completing the agreement.

The NTIA program plan envisions proceeding in several phases. The first phase of the project will take approximately four weeks and will result in the identification of the appropriate space segment for the resumption of PEACESAT activities. A limited number of University of Hawaii personnel will assist in managing the project, performing necessary studies, and preparing for the start-up of service. It is anticipated that the first year of this cooperative agreement will cost less than \$200,000.

Once the space segment and its associated costs are known, a determination will be made as to which additional activities—such as support of ground facilities or new services—can be funded through a follow-on cooperative agreement. Finally, we

will study and recommend long term alternatives for self-supporting PEACESAT operations.

In addition to providing oversight of the process of reestablishing PEACESAT, NTIA will provide expertise in evaluating alternative space segment services and the design of low cost ground facilities appropriate for PEACESAT users.

The identification of replacement capacity and the initiation of its procurement should be accomplished within four months of the signing of a cooperative agreement with the University of Hawaii. Recognizing that there is not a satellite comparable to ATS-1, the number of available alternatives is limited and the best replacement should be readily identifiable.

Meanwhile, NASA has again made the ATS-1 available to PEACESAT. The ATS-1 satellite has drifted over the Pacific Basin and will be available for a period of six to nine months. NASA decided to reactivate the ATS-1 satellite and permit its use by PEACESAT. This should facilitate coordination among the PEACESAT user community, as well as provide interim satellite capacity until new space segment is procured.

TRADE (GENERAL)

Question 1. over the past several years, the U.S. Government has attempted and in some instances succeeded in opening foreign telecommunications markets. What negotiations have been completed, and what ones are pending? In those countries where we have held such negotiations, has our trade balance in telecommunications equipment improved?

Answer. Since 1981, "Market-Oriented Sector-Selective" (MOSS) with Japan and "Market Access Fact-Finding" (MAFF) discussions with Republic of Korea and several European administrations have been conducted. In the first instance, the purpose of the MOSS talks was to obtain firm commitments to liberalize the telecommunications market access in Japan. Although the Japanese telecommunications market is now open in a regulatory sense, our bilateral trade balance has not improved.

The purpose of the MAFF talks, on the other hand, has been to exchange technical, policy, and legal information concerning the telecommunications environment in the United States and other countries. An objective has been to expand communications and information foreign trade opportunities available to U.S.-based firms. MAFF talks have been undertaken with the Federal Republic of Germany, Spain, the Republic of Korea, Sweden, Italy, France, the Netherlands, and the European Community (EC). This process is ongoing. During the remainder of 1988, the Government will hold talks with Sweden (May, 1988) and Korea (May, 1988), and probably with West Germany and Italy.

The U.S. telecommunications trade balance may be an imperfect indicator of the success of the Government's market access efforts. The United States may currently have a favorable telecommunications trade balance with certain countries, notwithstanding unwarranted foreign practices that deny U.S.-based firms access comparable to that which foreign firms enjoy here. Better indicators of negotiating success may be both the potential market available to U.S.-based firms and the absence of lowering of trade and technical barriers. Nevertheless, trade balances for selected countries are set forth below:

U.S. TELECOMMUNICATIONS EQUIPMENT TRADE BALANCE IN 1987

Country	1987 amount millions	1987 country market size equipment	
		Amount (billions)	Year
Japan	-\$2,213.1	\$7.9	
FRG.....	53.8	5.8	
France.....	-30.9	5.0	1986
U.K.....	170.3	3.4	1986
Italy	2.0	2.0	
Canada.....	-121.6	2.0	1986
Korea	-443.7	1.1	
India.....	35.3	1.3	
China.....	-6.0	1.0	
Brazil.....	280.2	1.0	1986
Sweden	-57.6	1.8	

U.S. TELECOMMUNICATIONS EQUIPMENT TRADE BALANCE IN 1987—Continued

Country	1987 amount millions	1987 country market size equipment	
		Amount (billions)	Year
Netherlands.....	72.3	0.7	
Spain.....	19.4	1.1	

Source: U.S. Department of Commerce.

U.S. EXPORTS TO SELECTED COUNTRIES

(In millions of dollars)

Country	1984	1985-1986	1987
Japan.....	74.3	106.2-138.7	175.5
FRG.....	94.2	102.2-108.8	103.6
France.....	41.8	44.1-38.5	42.6
U.K.....	150.9	179.4-191.3	225.4
Italy.....	34.1	36.1-36.0	44.9
Canada.....	256.9	246.6-250.8	331.7
Korea.....	141.3	133.0-103.7	68.3
India.....	9.6	16.2-22.6	35.3
China.....	13.9	31.5-45.3	56.0
Brazil.....	85.4	109.8-211.9	286.4
Sweden.....	0.7	1.3-2.0	17.0
Netherlands.....	30.0	71.3-83.6	79.1
Spain.....	19.9	30.8-21.3	21.8

Question 2. Last year at the Subcommittee's international telecommunications hearing, there was extensive discussion about the switch market in France and whether AT&T would be permitted to purchase the French firm, CGCT. As we all know, AT&T was not selected, even though the U.S. Government tried to help. What lessons did we learn from this effort, and what role should the U.S. Government play in the future?

Answer. This situation indicates the extent to which political considerations can affect communications and investment policies abroad. The United States does not believe such considerations should play a decisive role and has made that view known to our international trading partners. We are committed to reducing further barriers which interfere with the free flow of goods, services, and capital. As stated in the President's 1988 *Economic Report* to Congress, the overall U.S. goal is to identify and systematically address investment restrictions which have a trade-distorting effect and to bring those practices within the framework of GATT. *Id.* at 7, 141.

If there is a lesson to be learned from AT&T's French experience, it is that the United States should devote more effort toward ensuring international investment freedom, and should seek to identify potential problems before they arise. When such problems are identified, moreover, it may be desirable in the future for the Government to express our concerns to foreign administrations in a more timely fashion.

Question 3. Foreign representatives have also alleged that the procurement practices of BellCore and the Bell Operating Companies constitute a trade barrier. Do you agree?

Answer. Section II(B) of the 1982 AT&T antitrust consent decree forbids discriminatory procurement practices on the part of the Bell companies. Virtually all of the Bell companies, as well as their co-owned central service organization, Bell Communications Research (BellCore), have adopted programs designed to maximize competition in their procurement. Equipment testing and certification practices are designed solely to ensure technical compatibility. The difficulties which some foreign-based telecommunications equipment suppliers reportedly have encountered satisfying BellCore requirements are, in large part, a function of commercial decisions made by those companies. Some companies have sought to market in the United States equipment designed primarily for use in overseas monopoly markets which require extensive adaptation to conform with our more pluralistic market require-

ments. Not unexpectedly, firms have encountered some problems endeavoring to render relatively "feature-poor" network products compatible with our "feature-rich" technological and commercial.

Foreign-based companies including Bell Canada's Northern Telecom Inc. subsidiary, however, have satisfied BellCore requirements and, indeed, are a major competitive factor in the U.S. telecommunications equipment market. Additionally, major foreign-based suppliers including West Germany's Siemens AG and Sweden's L.M. Ericsson Group either have, or shortly will, meet all Bell Core requirements.

Question 4. Many foreign firms not only sell equipment in the United States, but have established manufacturing operations here. I can well understand their incentive given the size of the U.S. market. What foreign firms have set up manufacturing operations in the United States? Do these operations only assemble foreign-made components, or do they fabricate components here? Do any of these firms also engage in research and development in the United States? To what extent?

Answer. What statistics that are available regarding foreign investment in U.S. manufacturing facilities are set forth in the detailed and extensive *NTIA Trade Report* that was prepared and submitted in February 1987 to the U.S. District Court with responsibility for the AT&T consent decree. Copies of that report will be provided to the Subcommittee staff.

In brief, however, the worldclass, foreign-based telecommunications equipment first which have established U.S. manufacturing facilities include: Northern Telecom, Ericsson, NEC, Fujitsu, and Siemens. Additionally, such firms currently own major U.S. equipment manufacturing companies including Stromberg-Carlson (A subsidiary of Britain's Plessey PLC) and the former ITT manufacturing operation (now owned by the Netherlands-based Alcatel N.V.). At least three foreign-based companies (Ericsson, Northern Telecom, and Siemens) currently are exporting telecommunications products which they produce in the United States.

There are no reliable statistics precisely quantifying the U.S. content or value-added of telecommunications products generally, including those products produced by the U.S. operations of foreign-based firms. Calculating such content is exceedingly complicated by the fact that the United States is a major exporter of electronic components, subassemblies, and assemblies, and the offshore subsidiaries of U.S.-based firms are also major factors in these sectors.

In general, however, the more sophisticated, the more "high tech" a given telecommunications product, the more likely it is that the product is manufactured in the United States and that it has a relatively high U.S. content. Hence most of the foreign brand telecommunications switches, many private branch exchange (PBX) switches, and some key telephone systems are made here chiefly of U.S. components, while a large number of handsets are produced overseas chiefly using non-U.S. components. In the case of some products, such as digital switches, virtually all of the hardware may be imported while almost all of the software is produced here, an additional complicating factor. In such very high value-added lines, software costs may constitute as much as 70 percent of the total production cost.

Three foreign-based telecommunication firms (Northern Telecom, Ericsson, and Siemens) reportedly conduct some research and development (R&D) activities in the United States, although in the case of these firms, their principal R&D centers are located abroad.

INTERNATIONAL VALUE-ADDED NETWORK AGREEMENTS WITH THE UNITED KINGDOM (PROPOSED) AND WITH JAPAN

Question 1. While the United States was successful in completing an international value-added network agreement with Japan, we currently have a dispute regarding the use of private protocols. What is the status of this dispute, and is it of sufficient magnitude that we may need to negotiate an entirely new agreement with Japan more along the lines of our pending agreement with the United Kingdom? Do you believe that providers of international value added service should be licensed by the Japanese as Special Type II carriers?

Answer. In October 27, 1987, representatives from the Japan Ministry of Posts and Telecommunications (MPT) announced a new policy requiring firms providing international value-added network (IVAN) services to use CCITT-recommended protocols within two years. Electronic mail service providers must complete the transition within three years.

Both U.S. industry and Government agencies involved in telecommunications and information policy were surprised by this announcement. Many U.S. firms have developed proprietary protocols for delivery IVAN services. Replacing such protocols, which have been tailored for particular applications, with more generic CCITT-rec-

commended ones would deprive U.S. firms of a competitive advantage, and would force them to incur substantial unnecessary expenses.

It appears that the MPT does not intend to reverse its policy, if at all, until completion of the World Administrative Telegraph and Telephone Conference ("WATTC") in November 1988. Nevertheless, efforts are underway to encourage and persuade MPT to permit continued use of proprietary protocols. For example, on April 20-21, 1988, Acting Under Secretary Allen Moore met with Vice Minister Sawada and other MPT officials to present the U.S. position. On May 5th, Secretary Verity sent a letter to Minister Nakayama noting the importance of proprietary protocols in allowing U.S. firms to offer competitive services, and encouraging MPT to resolve this issue bilaterally. On May 10th, the U.S. Government held further talk with MPT representatives on this matter.

The Government will continue to encourage MPT to reverse its policy on proprietary protocols. Previously, Japan changed its domestic law to ensure a robust and substantially unregulated IVAN marketplace. IVANs operating in Japan are classified as Type II carriers which need only register with the MPT before commencing service. We believe it would be unwise to compromise procompetitive policies in this area. That would both deny Japanese business and consumers the benefits of expanded choice and adversely affect the opportunity of U.S.-based firms to compete in meeting Japan's market requirements.

Unlike the United Kingdom's legislation on value-added and data services, the U.S. and Japan Governments need not enter into a bilateral arrangement to address the protocol issue. Accordingly, the United States should not seek a special arrangement with the Japanese, but should encourage the Japanese Government to allow all IVAN providers to determine their own protocols.

Question 2. Is the United States engaged in negotiations with any other countries regarding the provision of international value-added networks?

Answer. Discussions regarding the business and consumer benefits of expanded value-added network operations regularly arise in conjunction with MAFF talks conducted with a number of overseas telecommunications administrations. At present, however, primary attention is being accorded to Japan and the United Kingdom.

QUESTION OF SENATOR PACKWOOD AND THE ANSWER

Question. "What steps has NTIA taken to encourage foreign countries to open their markets to U.S. telecommunications firms?"

Answer. Specifically, NITA played a major role in the "Market-Oriented Sector-Selective" (MOSS) talks between the United States and Japan, focusing on obtaining changes in Japan's domestic laws and regulations that would facilitate U.S. competitive participation in radio communications and value-added services markets. In addition, NTIA chaired, co-chaired, or participated in "Market Access Fact-Finding" (MAFF) talks with West German, South Korean, Spanish, French, Swedish, Italian, and Netherlands telecommunications authorities. A major objective in each instance was to encourage changes in foreign telecommunications regulatory regimes that would give U.S. telecommunications companies expanded competitive access to foreign markets. Some significant changes have been achieved, particularly in Britain and West Germany.

In West Germany, the Deutsche Bundespost (DBP) has proposed to phase-out restrictions on domestic and international private line circuit use. This should aid U.S.-based value-added network service providers seeking to compete in the West German market. The DBP agreed to significant reforms in its testing and related regulations governing non-DBP supplied customer-premises terminal equipment. The DBP also agreed to interconnection with U.S.-based international voice carriers in addition to American Telephone & Telegraph Co.

The West German Government has proposed significant changes in its telecommunications laws. This liberalization should have a positive effect in terms of expanding U.S. telecommunications trade opportunities.

Recently, NTIA played a major role in expanding the competitive opportunities available to international value-added (I-VAN) service providers seeking to serve Japan. NTIA also worked closely with the Federal Communications Commission and the Department of State to encourage liberalization of British international communications regulation, again, to facilitate trade opportunities in the United Kingdom for U.S.-based I-VAN firms.

More generally, NTIA has prepared and published a series of U.S. telecommunications market analyses over recent years aimed at showing empirically the benefits

that relaxed telecommunications and information regulation has produced in terms of expanding U.S. domestic economic growth and development. Several of these reports were prepared for the purpose of answering questions and concerns raised abroad regarding changes in the U.S. domestic industry, with the hope that, by so doing, accomplishing procompetitive changes overseas would be made easier. NTIA officials have participated in a number of international conferences and seminars as advocates for fewer restrictions on competition including U.S.-based competition.

QUESTION OF SENATOR MCCAIN AND THE ANSWERS

Question. I understand that many foreign countries prohibit market entry by competitive U.S. long-distance telephone companies. Other countries choose only one U.S. carrier in a bidding process. Many countries forbid resale and shared use of private lines. This situation retards the development of competition in the international long-distance market. What specifically is your agency doing to discourage or challenge these anticompetitive policies for the benefit of American enterprise in telecommunications services?

Answer. NTIA, first, has assisted U.S. international carriers seeking operating agreements with telecommunications administrations abroad. Through their own efforts, and with U.S. Government assistance including assistance from NTIA, carriers including MCI, US Sprint, and others now have access to several commercially important markets such as West Germany. International public-switched message telephone markets thus today are substantially more effectively competitive than was true seven years ago.

Second, NTIA has worked with other agencies and addressed the issue of resale and shared use restrictions on international communications circuits in connection with "Market-Access Fact-Finding" (MAFF) discussions with European and Asian communications administrations. Some progress has been achieved, despite the fact that resale and share use of international private line facilities is not consistent with prevailing recommendations of the International Telecommunication Union's Consultative Committee on International Telegraph and Telephone (CCITT). This is a complicated issue, however, particularly in light of the heavy dependence by U.S. business on international private line, and the suggestion by some foreign administrations that, if unlimited resale and sharing were permitted, existing private line offerings might be repriced. If international private line services were to be priced on a volume-sensitive or public-switched message basis, a result might be very substantial increases in communications costs for many U.S. businesses as well as the U.S. Government.

NTIA was instrumental in ensuring that Japan's laws and regulations permit international value-added network services (VANs). At present, NTIA and other agencies are seeking to change Japanese proposals that would limit use of proprietary protocols by international VANs. Additionally, NTIA and other Federal agencies have been working to secure policies permitting international VANs to operate between the United States and the United Kingdom.

Expanding competitive opportunities for new U.S.-based international satellite systems, sanctioned by the Federal Communications Commission pursuant to the President's 1984 determination, has been a third major NTIA policy program goal. Last year, the United States and Peru successfully consulted with the International Telecommunications Satellite Organization (INTELSAT) regarding the first such system. Recent changes in British law and regulations will permit separate satellite service between the United States and Britain. Consultations with INTELSAT regarding such new services should commence this year.

Senator EXON [presiding]. Mr. Borg, please proceed.

STATEMENT OF PARKER BORG, ACTING COORDINATOR AND DIRECTOR, BUREAU OF INTERNATIONAL COMMUNICATIONS AND INFORMATION POLICY, DEPARTMENT OF STATE

Mr. BORG. Thank you very much. I am pleased to appear before the subcommittee this morning. Although a newcomer to the world of international telecommunications, I have become a quick convert to the importance of this high technology area to foreign policy interests of the United States.

As a former ambassador in Africa, I witnessed firsthand the economic constraints developments that are imposed when a poor, undeveloped country lacks adequate telecommunications infrastructure.

Our approach to telecommunications is founded on the belief that the free flow of information strengthens political liberties and that free enterprise in an open and competitive market is the most productive and efficient means to foster innovation, meet user requirements, and stimulate economic growth.

We believe this model has wide applicability. In Africa, for example, I have seen countries come to the realization that government operation of the economy is not the panacea it was once thought. I witnessed governments reexamine privatization and the introduction of market forces to stimulate long-term economic growth.

In the past year we have made important progress in moving toward our objectives. My written statement outlines some of this progress in three broad areas: multilateral negotiations; bilateral and regional developments; and broadening institutional cooperation and capabilities.

In this presentation I would like to highlight a few areas, if possible, of special interest.

Two important multilateral negotiations, as the Chairman mentioned, will take place in the coming months. The first is the Space WARC. The second session of the World Administrative Radio Conference on the geostationary satellite orbit known as Space WARC begins in August.

You will recall that at the first session in 1985 the U.S. faced the possibility of having a rigid apriori planning system imposed upon future and existing satellite systems. However, we were successful in limiting planning to the fixed satellite service and to certain frequency bands.

At the second session we want to assure that there will be no significant disruption in the many existing government and private satellite systems. Our domestic deliberations have essentially been underway since the closing days of the first session in both the government and the private sector. They have been as intensive and complete as for any ITU conference.

Ted Brophy, the retiring chairman of GTE, was recently named to head the U.S. delegation and has taken charge of the delegation's preparations. We are currently implementing our diplomatic strategy through an intensive series of consultations with foreign governments designed to build coalitions of like-minded countries willing to address the conference's issues in pragmatic, flexible ways.

The second big multilateral negotiation is the WATTC, which will take place in November in Australia. Arthur Latno*, an Executive Vice President of Pacific Telesis, has been selected as chairman of the U.S. delegation to this conference. The WATTC has the task of drawing up the regulatory framework which will affect the provision of telecommunication services well into the next century.

In our preparations we have been working closely for several years with a broad range of U.S. private sector interests. The U.S. objected strongly to the ambiguous language of the preparatory committee's draft. It could be interpreted as bringing enhanced and

value-added services under the ITU regulations. The proposed regulations would obstruct the spread of the information revolution.

Recognizing the concerns of countries like the United States, ITU Secretary General Butler convened special sessions in Geneva from April 7 to 12 to review an alternate text for the draft regulations. This new draft showed definite evidence of movement in a liberalizing direction, but we have made no formal comment as yet.

We are now circulating the draft among the members of the U.S. WATTC planning group for review and comment which will be incorporated into the U.S. position.

Time does not permit such detailed discussion of other recent developments, but I would like to note a few of them briefly.

Last month Secretary Shultz accepted the aeronautical amendments to the INMARSAT Convention. This should allow the early introduction of aeronautical communications by satellite to the benefit of both U.S. industry and public safety interests.

The INMARSAT assembly of parties has also accepted the principle that it should offer land mobile satellite communications. Views of interested U.S. groups are now being solicited in preparation for a June meeting for the proposed amendments to be drafted.

On the bilateral side of our activities, we are close to concluding an arrangement with the United Kingdom to provide leased line services between our two countries. This will markedly liberalize our communications and should serve as a model for use with other countries. Although we have been pursuing this question for more than a year, we have narrowed our differences significantly in the last few weeks and are optimistic that an arrangement will soon be reached.

Other recent developments with the United Kingdom are the basis for new optimism that the U.S. policy on separate satellite systems is beginning to be accepted by foreign governments.

We have perceived preliminary indications that the United Kingdom will be joining in INTELSAT consultation on separate satellite systems. This is a very welcome development. We are now contacting other European governments with an invitation to associate with this consultation.

Telecommunications is a core issue in preserving good relations with Canada and Mexico. In my short tenure, I have led two inter-agency teams in discussions with the Canadians regarding satellite coordination. These discussions continue at a technical level.

Three new agreements with Mexico await signature. They will provide major advantages for users on both sides of the border in applying cellular radio technology, and land mobile radio services, such as public safety units, and for broadcasters in the lower power VHF and UHF frequencies.

We are taking steps to assist developing countries to bridge the gap in telecommunications capabilities. With the authority provided in last year's Foreign Relations Authorization Act, the State Department will be contributing \$200,000 in administrative and project support to the ITU Center for Telecommunications Development. A panel from the government and private sector is selecting projects which best promote U.S. interests.

From my experiences in the third world, I am convinced that these countries will be important telecommunications markets in the future. An additional contribution of \$50,000 will be made to the United States Telecommunications Training Institute to design new course materials for use in teleconferencing exchanges with training institutes in developing countries.

All agencies rely on our embassies and missions abroad to explain U.S. views, keep us posted on foreign developments, and assess foreign reactions. A high priority of the bureau has been to improve the capability of the Foreign Service officers abroad to carry out these responsibilities.

Our resources are shrinking as budgetary and personnel reductions take hold. It is not easy to sustain the momentum and advance our national interest in the most effective manner with these cuts. Often, we need to pool resources with others. The global stakes are high, and no agency can bear the burden alone; nor is the task solely a government undertaking. It must be shared with the private sector.

In closing, Mr. Chairman, I would like to acknowledge the collegial cooperation that I have received from my fellow panelists and their staff. I would like to note the support and initiation that I have received under into this policy area from the former coordinator, Ambassador Diana Lady Dougan. Many of the accomplishments I have noted are her achievements.

In conclusion, I thank the subcommittee for its interests in this critical policy area. I look forward to working with you in promoting an international telecommunications environment favorable to U.S. interests.

[The statement and questions and answers follow:]

STATEMENT OF PARKER BORG, ACTING U.S. COORDINATOR AND DIRECTOR, BUREAU OF INTERNATIONAL COMMUNICATIONS AND INFORMATION POLICY, DEPARTMENT OF STATE

Introduction Four significant changes in global telecommunications underscore our policy considerations and the importance of these hearings today. First, technology is compressing time and space in a manner to link mankind into a "global village." Second, the fusion of computer and communications technology is leading us into a new information-based economy. Third, the social changes being achieved through improvements in the quality of life styles have both domestic and foreign components. And finally, the political forces being stimulated by these developments can either promote or retard liberalization--and at the same time raise new challenges to totalitarian regimes.

Our approach to international communications and information policy is founded on a commitment to the principle that the free flow of information strengthens political liberties and democracy, and a conviction that free enterprise in an open and competitive market is the most productive and efficient means to foster innovation, meet user requirements and stimulate economic growth.

In my capacity as Acting U.S. Coordinator and Director of the Bureau of International Communications and Information Policy, I would like to give you a progress report of where we stand on our major initiatives. I have divided my statement into three broad areas: multilateral negotiations, bilateral and regional developments, and broadening institutional cooperation and capabilities.

Multilateral Negotiations

The International Telecommunication Union (ITU), INTELSAT, and INMARSAT play important roles in establishing the "rules-of-the game" governing international interdependence in the field of telecommunications. But, the process of achieving consensus within these organizations has become increasingly difficult and complex. In the ITU, the competition for access to the radio frequency spectrum and geostationary satellite orbit has gone beyond the technical process to become one flavored with political and economic considerations. Similar factors have complicated our efforts to win approval for separate satellite systems to compete against the international satellite organizations.

During this decade, the United States has participated in a continuing series of ITU radio conferences. These conferences, focusing on specific provisions of the International Radio Regulations, are of great importance to United States interests. Our principal objective in each negotiation has been to secure sufficient spectrum to meet present and future requirements of users in the government and private sector. We also have worked to develop flexible arrangements that will

encourage development and cost-effective applications of new technologies. Last year, two major conferences tested our negotiating ability -- the Second Session of the High Frequency Broadcasting Conference (HFBC) and the Mobile Services WARC. This year, the Second Session of the Space WARC and the World Administrative Telegraph and Telephone Conference (WATTC) will demand our keenest attention.

I would like to review our accomplishments of the last year and take a short look ahead to the two ITU conferences of major importance for U.S. interests.

High Frequency Broadcasting Conference (HFBC) -- The outcome of this conference contributed importantly to our ability to promote the free flow of information and communications. Major beneficiaries were the Voice of America and Radio Free Europe/Radio Liberty, which broadcast in the high frequency bands, as well as private broadcasters licensed by the FCC. The principal issue at the second session of the HFBC was the possible replacement of the current procedures for coordinating short wave frequency use, based on voluntary consultations between governments, with a computer based central planning system managed by the International Frequency Registration Board (IFRB), a permanent organ of the ITU. Conferees were able to reach agreement on a set of broad planning principles but deferred a decision on a new planning system for at least five years pending further testing by the IFRB. For the time being, the United States retains use of its current high frequency assignments. This was a major objective of the U.S. negotiating team. Additionally, the conference agreed that the IFRB would continue its monitoring program in identifying the sources of "harmful interference"--otherwise known as jamming.

Mobile Services WARC - The explosive growth in radio technology is having a profound impact on maritime, aeronautical, and land mobile services. This growth is reflected in the ITU's Radio Regulations, nearly two-thirds of which govern the scope and technical characteristics of the mobile radio services and equipment markets. For five weeks last fall, the United States worked with other ITU members to update these regulations to assure the safety of life and commerce on the high seas and in the air, to provide flexibility to accommodate future U.S. requirements and to introduce competition in the provision of mobile services. Favorable achievements included:

Global Maritime Distress and Safety System (GMDSS) - A new chapter in the Radio Regulations has been created to permit the future implementation of the GMDSS system, which is a ship-to-shore rather than a ship-to-ship distress system. Automated and with a global range, the GMDSS will provide a new standard of safety for mariners.

Mobile Satellite Service (MSS) Frequency Allocations- We succeeded in establishing the principle of worldwide MSS allocation. The United States did, however, reserve the right to utilize additional spectrum to meet our domestic MSS requirements.

Radiodetermination Satellite Service (RDSS) Frequency Allocations - The RDSS is a concept introduced by U.S. entrepreneurs to make it possible to pinpoint the location of a moving object on land, at sea, and in the air, over a wide geographical area. We were able to achieve our objective of obtaining frequency allocations to permit Western Hemisphere operations of the RDSS thus ensuring international recognition and protection for this new service.

SPACE WARC - The second session of the Space WARC starts on August 29 for five weeks of negotiations. You will recall that at the first session in 1985, the United States faced the possibility of having a rigid, a priori planning regime imposed upon future and existing satellite systems. However, thanks in very large part to the perseverance and effectiveness of our delegation, that session resulted in a set of decisions which the U.S. found generally acceptable. The two major decisions were: (1) planning should be limited to the fixed satellite service and, (2) planning would consist of an allotment plan for the little used frequency bands called "expansion bands" and improved procedures for the more heavily used bands. Of major importance was that there would be no significant disruption of the many existing systems and that critical government systems would be unaffected by new planning.

Preparations for the upcoming second session have essentially been underway since the closing days of the first session back in 1985. Federal government agencies, under the leadership of NTIA and the FCC through the private sector advisory committee, have methodically carried out studies and developed positions in their respective areas. The Department has followed these activities closely, coordinating the U.S. inputs to and participation in a number of international activities, including a series of Information Meetings given by the ITU's International Frequency Registration Board (IFRB) and meetings of the ITU's CCIR to prepare the technical bases for the second session.

The Department's view is that our domestic deliberations, in both the government and the private sector, leading up to the formal U.S. proposals to the second session have been as intensive and complete as for any ITU conference. The WARC

agenda deals with technical, operational, and business questions which will have an important impact upon the frequency bands used by and systems operated by our private sector. Our work is far from complete. The Senior Interagency Group for International Communications and Information Policy (SIG) must still give its concurrence to the U.S. proposals. We are currently fine-tuning our diplomatic strategy and planning a series of consultations with foreign governments in the four months remaining before the conference begins. Position papers are being drafted on the principal issues. All preparatory work is on schedule.

WATTC - The World Administrative Telegraph and Telephone Conference (WATTC), which will meet in late November in Melbourne, Australia, has the task of attempting to draw up the regulatory framework which will affect the provisions of telecommunications services well into the next century. Already, the attempt to rewrite the regulations has provoked a clash between those favoring a flexible framework and those favoring strict controls on all telecommunications services. The United States and the UK objected strongly to the ambiguous language of the Preparatory Committee's draft, primarily as it could be interpreted as bringing such entities as enhanced and value-added service providers under the ITU regulations. Because the draft would stifle competition, our message to governmental and user audiences abroad has been clear and unambiguous: We cannot accept the draft in its present form. Our efforts have been directed at arousing the concern of all relevant ministries, including ministries of economics, foreign affairs, and communications, and the large global community of users.

Earlier this month, ITU Secretary General Butler convened two meetings to review an alternate text for the draft Telegraph and Telephone Regulations. Twenty-one countries were invited to a special meeting on April 7-8 to discuss the proposed text. A second meeting open to all 163 member countries was convened on April 11-12 in Geneva. The new draft showed definite evidence of movement in a liberalizing direction, but we have made no formal comment as yet. We are now circulating the draft among the members of the U.S. WATTC planning group for review and comment which will be incorporated into a U.S. position.

Lessons of Multilateral Negotiations - We have begun to institutionalize many of the lessons learned over the years in preparing for the many ITU conferences. First, we have taken steps to ensure that the technical bases of our proposals, developed either through NTIA's Interdepartmental Radio Advisory Committee (IRAC) or the FCC's Notice of Inquiry and its Federal Advisory Committee are consistent with U.S.

foreign policy goals. An Executive Director is being appointed early in the process to oversee operational preparations for each conference.

We make every effort to ensure that capable and well qualified individuals are appointed in a timely manner to lead the U.S. Delegation to each conference. This process has led to the appointment of a distinguished list of private citizens and government officials to serve as Chairpersons of U.S. delegations to ITU conferences in recent years. Among our previous chairmen have been Leonard Marks, Dean Burch, Abbot Washburn, David Markey, and James McKinney. Later this year, FCC Commissioner Patricia Diaz Dennis and Theodore Brophy will chair delegations to the second sessions respectively of the Regional MF Conference in Rio and the Space WARC in Geneva while Arthur Latno will head the WATTC delegation in Melbourne.

There now exists a strong core of technical experts within the private sector and government agencies on ITU issues. For the most part, we draw from this talent pool for the technical experts to represent the U.S. at ITU meetings. On each delegation to major conferences, we seek to add generalist skilled in the process of diplomacy to increase understanding of the political, economic, and socio-cultural factors at play during the actual negotiations. On future delegations, we will place increased emphasis on foreign language facility and negotiating effectiveness in the multilateral arena.

For every conference, the Department of State is developing a diplomatic strategy to build support for U.S. positions. The two stage process is designed to advocate support for U.S. positions and to listen to what others want to achieve at the conference table. We particularly invite the private sector to complement our government-to-government consultations to build support at the grass roots level among the users community.

Finally, the creation of an interagency Home Team has proved effective in following the progress of negotiations and to provide quick policy guidance to the delegation should new circumstances develop during the conference. The Home Team, chaired by the U.S. Coordinator, does not attempt to "second guess" the U.S. Delegation's call at the conference but is a means of facilitating two-way communications and modifying the delegations instructions. Compromises made over the bargaining table usually require approval from capitals to make them stick.

The Facilities Arena - A number of very significant activities and achievements have been occurring in international satellite and undersea communications facilities in the past year.

INMARSAT - Last month, Secretary Shultz, on behalf of the U.S. party to the INMARSAT Convention, accepted the aeronautical amendments to the Convention which were adopted by an Assembly of Parties in 1985. We believe that this is an important step in allowing the early introduction of aeronautical communications by satellite which will benefit U.S. national and international public safety interests. INMARSAT's Assembly of Parties has also accepted in principle allowing the organization to offer a space segment to providers of land mobile satellite communications. As with the aeronautical amendments, the Assembly has specified that land mobile services would be provided by INMARSAT on a non-exclusive basis, competing with other aeronautical and land mobile systems that will be available internationally.

There will be a meeting of Experts of INMARSAT Parties in June to prepare the text of the proposed land mobile amendments. As the U.S. Party to INMARSAT, the Department of State will be soliciting the views of interested parties within the U.S. on the proposed amendments.

Future of INTELSAT - The Department of State has been working with other agencies of the United States Government and the private sector as well as INTELSAT to develop a consensus regarding the organization's future. Our basic objective is to ensure that INTELSAT remains a viable competitor, a universally available, global satellite network, and a complement to fiber optic cable facilities. A key issue under review is whether INTELSAT can strengthen its future role and whether customers will benefit by moving toward "resource-based" pricing. That is, will INTELSAT be more efficient and better able to compete with fiber optic cables if it moves in the direction of providing bulk, space segment capacity, similar to the manner in which AT&T and the PTTs provide bulk cable capacity for PTTs/carriers to meet customer demands. U.S.G. agencies are discussing this important question with COMSAT, INTELSAT, and foreign administrations. The Department of State and COMSAT have pricing studies underway to further define this issue.

U.S. initiatives in this area led to progressive movement at the last INTELSAT Assembly of Parties in recognizing the need to enhance user responsiveness, procurement practices, and prices methodologies. Moreover, U.S. efforts to ensure that INTELSAT prices domestic services appropriately and improves/expedites consultation procedures met with success.

Bilateral and Regional Developments

Bilateral and regional consultations are important for building understanding and clarifying positions. These discussions have also proved useful in resolving specific telecommunications problems which threatened to spill over into other sensitive areas of our bilateral relationships.

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US - UK Arrangements - During the course of late 1986 bilateral discussions in London, the U.K. proposed initiation of discussions that could markedly liberalize communications services between our two countries. For the past sixteen months, the Department has been working with both the UK and other USG agencies on the text of a leased line arrangement. We have narrowed our differences significantly in the last few weeks and are optimistic that an arrangement will be concluded in the near future.

Other recent developments in the United Kingdom give positive indications that U.S. policies on separate satellite systems are beginning to be accepted by foreign governments. First, a policy announcement from Lord Young, Secretary of State for Trade and Industry, and second, a decision from the Director General of Telecommunications have significantly opened the opportunity for expanded satellite communications services between the United States and the United Kingdom. The Department of State firmly believes that provision of new, limited private line and video services will benefit U.S., European, and Latin American interests, expand market opportunities, advance technology, and not adversely affect the INTELSAT global system. PANAMSAT is the first U.S. separate satellite system to be consulted through INTELSAT. Our experience with PANAMSAT offers a valuable lesson in demonstrating that achievement of market access must be a shared process between government and private industry. We can assure the government-to-government relationship while the private sector must line up the customer base to impress on other governments that demand exists for such services.

US - Japan - In close coordination with the other agencies, the Department of State's efforts to promote liberalization in Japan showed progress last November when the Ministry of Posts and Telecommunications decided to license both International Telecom of Japan, Inc. (ITJ) and International Digital Communications, Inc. (IDC) as authorized carriers of international telecommunications services to and from Japan. IDC is comprised of C. Itoh & Co., Toyota Motor Co., Cable and Wireless, PLC, Merrill Lynch & Co., and 30 other companies including several from the U.S. The consortium plans to construct a private fiber optic cable network in 1989 linking the U.S. and Japan. Overseas service is expected to be extended to other Pacific and European nations in the future. Expected authorization of the IDC private cable by the U.S. and Japanese private sector interests should stimulate the development of new, flexible and innovative service offerings for clients.

Market Access Support - The Department has joined with the other agencies to encourage several key trading partners to

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avoid measures that could lead to a new series of retaliatory protectionist and non-tariff barriers disruptive to our mutual security relationship. In addition, the Department worked extensively on the development of the sectoral annex on Computer Services and Telecommunications Network Based Enhanced Services to the Free Trade Agreement with Canada as well as on the earlier, U.S.-Israeli Declaration on Trade in Services. We also have participated in an interagency study to assess implications for the U.S. of harmonization of European telecommunications market, as outlined in the EC Green Paper.

OECD - Much of our dialogue with the industrialized countries on telecommunications policy issues is conducted through the Organization for Economic Cooperation and Development (OECD)'s Committee on Computers, Communications, and Information Policy (ICCP). Last month, as a result of U.S. pressure, the ICCP agreed to give more importance to telecommunications policy issues within its overall work program. As a result, the ICCP will establish a single working party to address telecommunications policy, the implications of changing information and telecommunications market structures, and trade in communications services. The ICCP will also work with a second OECD Committee reviewing the invisible code (CMIT) to survey international trade in communications services and measures affecting them. Additionally, we tabled a non-paper at a recent OECD meeting which called attention to the implications of WATTC for trade liberalization and structural adjustment. Work done by the OECD will make important contributions to promoting US objectives for both the WATTC and GATT negotiations on services.

Hemispheric Relations

Executive Branch Review of Separate Satellite/Transborder Satellite Policies - Within the Senior Interagency Group on International Communications and Information Policy, we are reviewing, with other domestic agencies, the boundary lines distinguishing applications of our Transborder and Separate System Satellite Policies. This review was called to examine a potential overlap in the two policies (separate systems and transborder) which needed to be addressed. The transborder policy does not specifically preclude the offering of public switched services whereas the separate system policy does restrict such services. Moreover, there is no precise definition of the geographic region in which the transborder policy applies. The transborder policy allows services to "nearby" countries "incidentally" covered by a U.S. satellite beam intended for domestic coverage. At this stage of the SIG process, several potential problems and policy options are being aired.

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U.S. - Peru - As a result of our earlier success in concluding the consultation process with INTELSAT, Peru will soon be able to initiate new services using the Pan American Satellite, Simon Bolivar, that is scheduled for launch next month. Other Western Hemisphere countries may soon be joining Peru in accessing the Simon Bolivar satellite.

U.S./Canada/Mexico - Telecommunications is a core issue in preserving good relationships with Canada and Mexico. In January, I led an interagency team to Ottawa to discuss several problems regarding satellite coordination that, if left unattended, could have affected Canadian attitudes on the Free Trade Agreement and the Space WARC negotiations. These discussions with Canada are continuing at the technical level with periodic oversight sessions. On April 11-13 the Department of State hosted a trilateral meeting with representatives of Canada and Mexico where progress continued in our efforts to resolve the delicate question of future orbital slots for the North American continent.

Likewise, telecommunications has been a positive element in the bilateral relationship between the Reagan and de la Madrid Administrations. A number of bilateral operating agreements have been negotiated in recent years. Three new agreements await signature. These agreements will provide major advantages for users on both sides of the border in the areas of cellular radio technology, private land mobile radio services, including public safety, and broadcasting in the low power VHF and UHF frequencies.

Developing Countries - The Information Revolution and the globalization of the economy have been fundamental factors in facilitating the graduation of several developing countries to the special status of "Newly Industrialized Countries." All experts agree that a modern communications infrastructure is an important catalyst in promoting economic growth. In both economic and political terms, assistance to the developing countries in "bridging the gap" in telecommunications capabilities is taking on increasing urgency. In a world where each country has an equal vote in the multilateral institutions and the vast majority of these members are "have-nots", we cannot ignore the needs of the developing countries. The Department of State is working with other USG agencies and the private sector to develop appropriate responses to these concerns.

With the authority provided in the Foreign Relations Authorization Act for Fiscal Years 1988 and 1989 (Public Law 100-204), the Department of State will be contributing \$200,000 in administrative and project support to the new ITU Center for Telecommunications Development. A representative panel from

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the USG and private sector is reviewing the Center's field projects to identify those which we believe most support US interests. It is hoped that the private sector will make matching cash and "in-kind" contributions to the Center's program. An additional contribution of \$50,000 will be made to the United States Telecommunications Training Institute (USTTI) to design new course materials for use in teleconferene exchanges with training institutes in developing countries.

Last summer, Ambassador Dougan visited five African countries. This marked the first time that a senior USG official had engaged African leaders on the broad range of telecommunications issues. We believe that her discussions contributed to a responsive attitude among the African countries at the Mobile WARC. As a former Ambassador in Africa, I know the value of such visits have in creating a more positive attitude towards the United States in both the bilateral and multilateral context. One of my priorities will be to follow-up on some of these initiatives to improve the posture of U.S. industry in the Third World and build support for U.S. policies in multilateral fora.

Broadening Institutional Cooperation and Capabilities

Secretary of State Shultz and other high officials of the Department of State fully appreciate that the Information Age is profoundly affecting the foreign policy process. Two years ago, Secretary of State Shultz examined the topic in his speech, "Shape, Scope, and Consequences of the Age of Information". With Secretary Shultz's encouragement, the Department, in conjunction with the National Academy of Science held a two-day workshop last September for senior Department officers and private sector representatives on "The Revolution in Information and Communications Technology and the Conduct of U.S. Foreign Affairs." In its examination of the impact of the socio-economic and political dimensions of the new age, the group concluded that negotiations for a global telecommunications regime have become more political and the stakes more important. We will continue to draw attention to the vital link between telecommunications and foreign policy at every appropriate opportunity.

Executive Branch Coordination - Multifaceted communications and information policy negotiations require a mixture of diplomatic, technical, and economic commercial skills. Close cooperation and coordination among Executive Branch agencies and the private sector are essential to produce the right mixture of talents and expertise. Regular consultations among the senior officials of the principal agencies involved in international telecommunications policy is enhancing the Administration's capability to respond to challenges and

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opportunities in a more coordinated manner. The reactivation of the Senior Interagency Group for International Communications and Information Policy (SIG) provides a mechanism for ensuring that the broader national security implications of the issues are considered.

Improving Institutional Capabilities - Our ability to persuade others has not progressed as rapidly as the technology of transmitting messages. As your House colleague, Dante Fascell, once noted, the world's most difficult distance to traverse is the two inches from the eyes and ears to the brain. Therefore, our initiatives must be credible, sensitive to foreign concerns, and delivered effectively. For the most part, we must rely on Foreign Service Officers posted in our Embassies and Missions to explain U.S. views, keep us posted on foreign developments and to assess foreign reactions. A high priority of the CIP Bureau has been to improve the capabilities of Foreign Service Officers abroad to carry out responsibilities in this new functional area. We have asked each Embassy to designate an officer to follow telecommunications policy issues and to present our policy views to government officials and private sector representatives in the host country. Already, we are beginning to see positive results in our ability to understand foreign positions better at the many ITU conferences and other multilateral meetings.

As part of our continuing efforts to keep our these officers abreast of the policy concerns and developments, the Bureau held a seminar last October in Geneva for those assigned in Western Europe. This event was held in conjunction with the major exposition, TELECOM '87. The venue enabled participants to gain a first hand appreciation of the new technology and to exchange views on European developments with a cross section of representatives of equipment suppliers, common carriers, broadcasters, facility providers, and users. Several of the private sector participants found that the format lent itself to improving their understanding of the broader political and economic trends in Europe.

The ability of the Department of State to play an effective role in advancing the U.S. international communications and information policy agenda requires adequate material as well as human resources. CIP will use its limited resources in the most effective manner to advance the national interests. This often means pooling resources with other bureaus and agencies. The global stakes are so high that no agency can bear the burden alone. Nor is the task solely a government undertaking. It must be a shared undertaking between the government and the private sector.

In conclusion, I thank the Subcommittee for its interest in this critical policy area. I look forward to working with you in promoting an international telecommunications environment favorable to U.S. interests.

QUESTIONS OF SENATOR INOUE AND THE ANSWERS

Question. I understand that many foreign countries prohibit market entry by competitive U.S. long distance telephone companies. Other countries chose only one U.S. carrier in a bidding process. Many countries forbid resale and shared use of private lines. This situation retards the development of competition in the international long distance market. What specifically is your agency doing to discourage or challenge these anticompetitive policies for the benefit of American enterprise in telecommunications services?

Answer. Most foreign governments have historically dealt with two or three competitive U.S. telex carriers and one U.S. telephone carrier, AT&T. Recently, competitive U.S. telephone carriers have begun entering the international market. MCI, Sprint, and other U.S. long distance telephone companies have, without U.S. government assistance, reached agreement with several countries to provide competitive service to that of AT&T.

In two other important countries—Japan and the Federal Republic of Germany—the U.S. Government played an active role in gaining market access for competing carriers. As a consequence of U.S.-Japan Market Oriented Sector Specific (MOSS) talks, MCI and Sprint in 1986 achieved operating agreements with the Japanese long distance carrier, KDD. U.S.-Government initiated Market Access Fact Finding (MAFF) discussions with the Federal Republic of Germany also resulted in agreements whereby Sprint and MCI gained international gateways to the FRG. Additional U.S. carriers can access the German market through the Sprint gateway. The State Department has been active in this interagency effort to open the Japanese and West German markets to competing carriers.

The Department has also participated actively with the Federal Communications Commission and the Commerce Department of liberalize uses of international private leased lines. U.S. Government efforts in Japan—again as part of the MOSS talks—culminated in the establishment of International Value-Added Networks (IVANS). Since 1987, five U.S. companies have started operating these services. Bilateral discussions with the United Kingdom initiated by the Department of State have also brought our two countries close to an agreement that would liberalize rules on U.K. international private leased lines.

Question. While the U.S. was successful in completing an international value added network agreement with Japan, we currently have a dispute regarding the use of private protocols. What is the status of this dispute, and is it of sufficient magnitude that we may need to negotiate an entirely new agreement with Japan more along the lines of our pending agreement with the United Kingdom? Do you believe that the providers of international valued added services should be licensed by the Japanese as Special Type II carriers?

Answer. On October 27, 1987, representatives from the Japanese Ministry of Posts and Telecommunications (MPT) announced a new policy requiring firms providing international value-added network (IVAN) services solely to use CCITT-recommended protocols for packet switching within two years. Electronic mail service providers must complete the transition within three years.

Both the U.S. IVAN industry and government agencies involved in telecommunications and information policy were surprised by this announcement. Many U.S. firms have developed proprietary protocols for delivering such services. Replacing such protocols, which have been tailored for particular applications, with more generic CCITT-recommended ones would deprive U.S. firms of a competitive advantage, and would force them to incur unnecessary expenses.

It appears that the MPT does not intend to reverse its policy, if at all, until completion of the World Administrative Telegraph and Telephone Conference (WATTC). Nevertheless, efforts are underway to apply pressures on the MPT for continued use of proprietary protocols. On April 20-21, 1988, Acting Under Secretary of Commerce Allen Moore met with Vice Minister Sawada and other MPT officials to present the U.S. position. On May 5, Commerce Secretary Verrity sent a letter to Minister Nakayama noting the importance of proprietary protocols in allowing U.S. firms to offer competitive services and encouraging MPT to resolve this issue bilaterally. On May 10th, the USG held talks with MPT representatives on this matter, but no new proposal was offered by the MPT representatives to resolve the issue.

The USG will continue to press MPT to reverse their policy on proprietary protocols. Previously, Japan changed its domestic law to accommodate our interest in a robust and substantially unregulated IVAN marketplace. IVANs operating in Japan are classified as Type II carriers, under the Japanese regulatory scheme, which need only register with the MPT before commencing service.

The governments of the U.S. and Japan need not enter into a bilateral agreement to address the outstanding protocol issue. Our relationship with Japan is different from our relationship with the United Kingdom in that the UK domestic regime specifically contemplates international "arrangements" to increase the uses to which international leased circuits can be private. Accordingly, it is inappropriate for the United States to seek a special arrangement with the Japanese patterned after that we are discussing with the U.K. Instead, we should continue to encourage the Japanese government to allow all IVAN providers to determine what protocols will be used to deliver their services.

Question. Is the U.S. engaged in negotiations with any other countries regarding the provision of international value added networks?

Answer. No. The Department of State is not currently engaged in negotiations with any other countries regarding the possibility of entering into a bilateral arrangement for the provision of international valued added services, but it has held exploratory discussions with several regarding this possibility. Once the arrangements with the U.K. and/or Japan are completed, we expect there will be movement with other countries.

Question. It appears that the U.S. has had problems at many of the International Telecommunication Union (ITU) conferences held over the past eight years. For example, at the recently completed Mobile Services Conference (Mobile WARC), the U.S. was not able to meet its objective on allocating sufficient spectrum for mobile radio services delivered via satellite. What can we do to better advance U.S. interests at the ITU?

Answer. Recognizing the wide disparity in views at some of the recent ITU meetings, the Department believes that on balance the United States has done reasonably well in achieving its objectives at radio conferences in providing for new radio services and protecting and accommodating existing services, such as the very important international high frequency broadcasting operations of VOA and RFE/RL. In the way of positive examples, we have pursued and achieved:

Region-wide technical standards and procedures for AM-radio broadcasting in the existing frequency band (535-1605 kHz) (except in Cuba) and will shortly conclude similar provisions for the expanded band (1605-1705 kHz);

Global recognition of a Western Hemisphere plan and associated procedures for the use of broadcasting satellites in the 12 GHz band;

Implementation of the Global Maritime Distress and Safety System (GMDSS) and adoption of other steps to provide improved communications systems for safety of life and property at sea, in the air and on land; and

Allocation of spectrum worldwide to permit the introduction of a new radiodetermination satellite service (e.g., GEOSTAR).

At the same time, I would agree that we have had our share of problems at these conferences and that U.S. objectives have not always been embraced with open arms. In the specific case of satellite allocations considered at the recent 1987 Mobile WARC, we believe there is sufficient allocation (7+7MHz) to allow the introduction of the mobile satellite service but we clearly would have liked more bandwidth than was adopted. The WARC recognized that another conference would be necessary to decide on additional spectrum for the mobile satellite services. The U.S. did not have broad support for our worldwide satellite service proposals, in very large part due to the complexity of the issue both domestically and internationally, but also because of the inadequacy of time to mount an effective diplomatic campaign. The fundamental problem, however, was that our internal U.S. process to determine our U.S. position took too long. If we are to achieve greater success at future conferences, there are a number of steps we must take. We must:

Begin the process in the U.S. early enough to allow adequate time for all the separate interest groups to identify their concerns;

Follow a systematic program to establish not only the position we would like to see adopted, but also one or more fall-back positions based upon the early identification of those specific programs or activities which we give the highest priority;

Sell the U.S. position aggressively and well in advance of the conference;

Develop as much intelligence as possible before the conference about the positions which other countries are likely to take, determine where there might be flexibility in these positions, and begin discussing compromises with key allies in an effort to build a coalition of support before the meeting; and

Establish leadership at the conferences which is able to demonstrate skillfully the advantage of the U.S. position, speak with one voice, listen sympathetically to the concerns of other states, and work constructively and flexibly to achieve a successful outcome.

We have adopted this approach to the upcoming conferences and will be working continuously to pursue it to advance U.S. interests more effectively.

Question. In 1985, the ITU held its first session on allocating the geostationary orbital arc. This proved to be a very difficult conference for the U.S. We proposed limited planning and improved coordinating procedures but had to settle for more extensive, allotment planning and the potential of rigid, multilateral planning procedures.

Less than a month ago, the FCC released the U.S. position for the upcoming second session of this conference. This position indicated that we were still seeking the maximum flexibility for planning the use of the geostationary orbit. At the same time, I have seen statements of the Secretary-General of the ITU and of various foreign countries, and they are saying the results of the first session are not to be reopened but to be built upon. This seems very different from our view of this conference. Do you believe the U.S. will be able to achieve its objectives at this summer's second session?

Answer. The major decisions of the 1985 first session of Space WARC were that planning should be limited to the fixed satellite service and to certain frequency bands, and that the planning to be carried out by the second session should consist of two methods, as follows: an allotment plan in some relatively unused bands and improved procedures based on multilateral planning meetings for the presently used bands. Of major importance was that there would be no significant disruption of the many existing systems already in use and that critical government systems would be unaffected by new planning. During the first session, many delegations opposed discussion of the details of the candidate planning methods since they believed it might sway or prejudice the results. Thus, due to the late hour and great difficulty in reaching agreement on the major issues, the first session did not spend any time on the associated details, thereby leaving it up to the ITU members and the second session to "put the meat on the bones."

Our national preparations for the upcoming second session have been underway virtually since the closing day of the first session back in 1985. Federal government agencies, the private sector and many other interested parties have carried out studies and developed positions on the various conference issues. This process has focused on identifying a practical means of implementing the concepts adopted at the first session. Our resulting proposals and positions do, in fact, seek to obtain the maximum flexibility for planning the use of the geostationary orbit within the guidelines previously adopted.

All U.S. players in the WARC preparations are keenly aware that the conference agenda deals with extremely important technical, operational and business questions. This is reflected in the documents which the FCC and NTIA recently sent to State with a recommendation they be forwarded to the ITU as the formal U.S. proposals to the second session. Our work is not yet complete, since there is still the need to fine tune our diplomatic strategy, to prepare detailed position papers and tactics for the conference itself, to collect and analyze the results of consultations, and to study foreign proposals for their potential impact on U.S. interests. All of this is in place and proceeding on schedule.

In summary, it is the Department's firm view that these proposals build upon the 1985 results and add much of the detail which was neither discussed nor agreed during that contentious first session. On most issues, including allotment planning, simplified procedures, broadcasting satellites and technical matters, there is general international support for the ideas expressed in the U.S. proposals. Our views on the improved procedures (using multilateral planning meetings) appear to have a growing level of support from other countries and international satellite organizations, such as INTELSAT, that have actually coordinated and operated satellite systems. We are optimistic that others can and will be persuaded of the merit of our approach, which emphasizes the continuing role of individual satellite operators and avoids a new and unnecessary formal structure within the ITU. There is every reason to believe we will substantially achieve our objectives.

Question. This December's World Administrative Telegraph and Telephone Conference (WATTC) was the subject of extensive testimony at last year's Subcommittee hearing. What is the Official U.S. position for this conference? Has the recently held Preparatory Conference in Geneva alleviated any of the U.S. concerns about the WATTC?

Answer. The official U.S. position related to the WATTC continues to be the July 31, 1987 comments the Department of State submitted to the CCITT on the new draft International Telecommunications Regulations developed by the preparatory committee for the WATTC (PC/WATTC-88). Those comments will remain the expression of U.S. policy until superseded by a specific U.S. proposal. Country propos-

als, which are to be submitted to the ITU before May 31, 1988, might take into account an alternative draft text of the Regulations tabled by ITU Secretary General Butler at informal meetings in Geneva, April 7-12. While these meetings and Secretary Butler's suggestions have injected new momentum and realism into the preparations for the WATTC, they have not alleviated all U.S. concerns about the Conference. U.S. Government and industry officials are currently evaluating Secretary General Butler's suggested alternative draft.

Question. The recent decision of Professor Carsberg of OFTEL to permit customers in the United Kingdom to access our separate satellite systems was certainly a boost for U.S. policy. When do we expect to complete the INTELSAT consultation process so that service can begin? Because of the generic nature of Professor Carsberg's decision, do you believe the U.S. should attempt to consult other authorized separate systems at this time?

Answer. The U.S. hopes that action respecting PanAmSat will be taken by the INTELSAT Board's technical committee in May and by the scheduled Board of Governors' meeting in June. In accordance with Article XIV of the INTELSAT Agreement, an extraordinary session of the Assembly of Parties will be requested for this fall. During the 1987 consultation undertaken by the U.S. and Peru, the INTELSAT Executive Organ indicated that no technical interference or significant economic harm would occur to INTELSAT as a result of the proposed operation of the PanAmSat satellite. Accordingly, the Department is optimistic that the upcoming consultation, involving the same satellite, will not be difficult. We believe also that the U.S. should consult other authorized separate systems once they have met Executive Branch and FCC requirements.

Question. Is the Executive Branch now reviewing its separate systems and transborder satellite policies? When will a decision be reached? Will the January 1988 U.S. Court of Appeals decision in the "transborder case" have any affect on this review?

Answer. A Working Group of the Senior Interagency Group (SIG) on Telecommunications Policy was established to harmonize the distinctions between the two U.S. satellite policies which govern the provision of satellite services by 1) domestic systems (transborder policy) and 2) international systems (separate system policy). The transborder policy does not specifically preclude the offering of public switched services whereas the separate system policy does. Moreover, the region in which the transborder policy applies is not specifically defined—other than referring to "nearby" countries. When each type of system operates in the same geographic area, there could be policy and legal challenges regarding potentially disparate treatment.

Following a study by the SIG Working Group and a report to the SIG on the advantages and disadvantages of various policy alternatives, it was determined that an immediate policy change was not required. There are currently no requests for public switched services into or out of the U.S. by transborder systems. Also, there may be decisions made at the upcoming Space WARC which will further refine U.S. thinking on orbital location questions which relate to these two U.S. satellite policies (transborder and separate system). The SIG Working Group is continuing its review of the various policy options.

The 1988 U.S. Court of Appeals decision in the Jamaica Teleport case has certainly affected the government's consideration of the "transborder" policy, and has further focused our thinking whether there is a need for harmonizing the two policies.

QUESTIONS OF SENATOR PACKWOOD AND THE ANSWERS

Question. What steps has the Department of State taken to encourage foreign countries to open their markets to U.S. telecommunications firms?

Answer. The Department of State has been involved in the promotion of telecommunications market access for many years. We not only conduct analytical work on telecommunications competition, liberalization, and development, but also actively participate in specific market opening measures. We do this through extensive bilateral and multilateral work. Some examples:

Telecommunications Trade Strategy: We have been working with other agencies under the aegis of the Telecommunications Trade Strategy group that is seeking to develop overall telecommunications trade objectives, scorecards on where the markets stand for various other countries, and coordinate the various telecommunications trade-related activities of the U.S. Government.

MAFF: The Market Access Fact-Finding (MAFF) talks have been a part of the Executive Branch work in increasing market access. The Department has supported

the work of the trade agencies from the very beginning. This is not the only means for increasing market access, but it has been an important forum that did not previously exist and one that industry strongly supports.

U.S.-EC talks: The Department also has held discussions with the Commission of the European Communities (EC Commission) in Brussels since 1984. As the EC Commission has been developing its role in telecommunications harmonization, it has proved to be a major player in world telecommunications.

We have been especially active since last summer in providing the necessary analysis of the most recent telecommunications policy paper issued by the Commission in our analysis of the EC Green Paper. Most recently we have participated in discussions conducted by Ambassador Mike Smith, Deputy U.S. Trade Representative that were held in Brussels in February 1987 and in February 1988 here in Washington.

U.S.-Canada Free Trade Agreement (FTA): The Department participated extensively in the development of a Sectoral Annex to the FTA on Computer Services and Telecommunications Network Based Enhanced Services. The objective of the Sectoral Annex is to maintain and support the further development of an open and competitive market for the provision of enhanced services and computer services.

U.S.-Israeli Free Trade Agreement (FTA): The Department has been involved in consultations with the Government of Israel on establishing a Free Trade Agreement. The U.S.-Israel Declaration on Trade in Services is a non-legally binding agreement signed on April 22, 1985. To establish the basis for transforming the Declaration into a legally binding agreement, the United States and Israel have since held three rounds of consultations where the provisions of the Declaration have been applied to specific services sectors—tourism, telecommunications and insurance.

At this time, it appears that we are going to discuss with the Israelis the possibility of postponing the next round of consultations to permit our people that are involved in services issues to devote their energy to the current services negotiations in the GATT.

Preparatory Work for the Uruguay Round: The Department has been involved in the preparatory work for the Uruguay Round. In November 1987, the U.S. tabled a proposal for a framework agreement on trade in services in the Uruguay Round of multilateral trade negotiations. Currently, there are no rules governing trade in services in the General Agreement on Tariffs and Trade. Establishing such rules is one of the top U.S. priorities in the Uruguay Round.

The U.S. framework proposal includes: conditions to ensure that government measures affecting service industries are developed and maintained in a clear and predictable manner and that information on such measures is readily accessible and is made known to all interested parties on an equal basis; provisions for national treatment requiring that foreign service providers receive treatment no less favorable in like circumstances than that accorded to domestic service providers; rules governing the use of domestic or export subsidies; provisions requiring discipline on state sanctioned monopolies; non-discriminatory accreditation procedures; and a consultation and dispute settlement process.

No decision has been made on what sectors will be on the agenda. That will require a separate negotiation since every country has a sector or sectors where it will want to discuss market opening initiatives. We recognize, however, that preparatory work needs to be done to place telecommunications on the agenda for the negotiations. We are looking to like-minded countries to examine how trade concepts can apply to the telecommunications area.

ICCP/OECD: The Department heads the U.S. Delegation to the Committee on Information, Computers, and Communications Policy (ICCP) of the OECD. We have pursued restructuring of the ICCP Committee so that it could respond in a better way to important issues that need international discussion among the U.S. and our major trading partners. This is particularly true of the telecommunications area. In March, 1988, we were successful in urging that the ICCP create a working group to look exclusively at issues involving telecommunication and information services policy. The ICCP will now be poised to conduct in-depth analysis on a framework for trade in telecommunications and information services in support of the GATT, which will complement our own work on this issue, and in-depth analysis of the important issues involved in telecommunications liberalization and restructuring. Specifically, we will be working to develop an agreed-upon list of barriers to trade in ICC services.

Telecommunications Development in the Third World: The telecommunications sector is not limited to trade between industrialized countries. We have seen in-

creasing liberalization taking place in developing countries, such as Malaysia, Jordan, Guatemala, and Sri Lanka, to name but a few.

In our work in this area to date, we have supported the establishment of the ITU's Center for Telecommunications Development. In helping Third World countries to implement developments and technological change in the telecommunications sector, this body can contribute to this liberalizing trend in the developing world.

Furthermore, the Department is seeking to expand the role of the United States in promoting telecommunications development in the Third World. This will include the principles of (1) policy reforms, (2) appropriate maintenance and operation of telecommunications systems, and (3) quality investment. These actions will work not only through the ITU but through U.S. Government and private sector programs to educate the developing world and reduce its fear of actions by the industrialized countries. We need to show them the benefits to their own self-interest and development of their economies that can occur through implementation of these principles and reforms.

Senator EXON. Thank you, Mr. Borg.
Ms. Barell.

**STATEMENT OF MARIAN BARELL, DEPUTY ASSISTANT FOR THE
U.S. TRADE REPRESENTATIVE FOR INDUSTRY**

Ms. BARELL. Thank you, Mr. Chairman and members of the subcommittee. The Office of the United States Trade Representative appreciates the opportunity to appear before this subcommittee to discuss the important issue of international trade in telecommunications.

I would like to focus my remarks today on three areas: the importance of telecommunications trade to the overall health of the economy and the effects of market barriers on our competitiveness; the multilateral and bilateral efforts we have undertaken to address our telecommunications trade problems; and the efforts to coordinate our telecommunications strategy with representatives of the private sector.

The Administration recognizes the vital importance of telecommunications as the center of economic change and growth. The panelists today have certainly testified to that fact.

In the United States the telecommunications industry is of central importance to our international competitiveness both with respect to traditional industries as well as in the emerging areas.

By any measure, we are the world's leader in the production, applications and use of telecommunications equipment and services. Despite this competitiveness, U.S. providers are facing very serious problems. Despite the dynamism of this sector internationally, it is also traditionally one that has been among the most shielded from competition. It is a sector characterized by highly protected, highly regulated national monopolies.

Under these circumstances, in most countries efficiency has been the exception rather than the rule. In the United States, on the other hand, deregulation has presented a different set of circumstances. It has created major opportunities for producers and consumers alike. At the same time, it has led to serious competitive pressures for U.S. firms.

The U.S. market is now the most open in the world, a situation that was certainly partly responsible for the telecommunications equipment trade deficit of approximately \$2.6 billion last year.

By contrast, among most of our trading partners the state monopoly or state-authorized monopoly is the dominant purchaser of equipment and the only provider of service. These monopolies, which operate outside of international trading rules, often favor local over foreign suppliers, thereby denying our firms opportunities in their market and increasing the pressure on the U.S. market to absorb much of the world's output.

Given these wide disparities in competitive and regulatory regimes, it would be a mistake to look solely at trade performance as the determinant of U.S. technological strength or even as an indication of market openness. The European Community, for example, correctly points to their telecommunications equipment trade deficit with us, which last year was \$326 million, as proof that their market is more open than we claim and that our market is much more closed than we assume.

Certainly, we would not agree with that assessment. A far better measurement and the yardstick the Administration uses is the extent to which the local environment fosters competition and innovation. Do non-national firms enjoy a chance to compete, or do they face obstacles at every turn? We have applied that yardstick and found certain foreign markets lacking in any real opportunities.

In response, as your witnesses have already testified today, the Administration is devoting very serious efforts both multilaterally and bilaterally to opening those foreign markets.

On the multilateral front, the GATT or the General Agreement on Tariffs and Trade, is one important focus of our efforts. For example, under the auspices of that multilateral body, we have placed a very high priority on improved procurement discipline by government-owned or government controlled entities. We are attempting to obtain foreign countries' adherence to the Government Procurement Code as it relates to PTTs.

Another area of concentration is technical barriers to trade, or standards, which countries use at times for valid regulatory purposes and at other times as disguised trade restrictions. We are working under the multilateral Standards Code to obtain agreement on acceptance of U.S.-generated test data by foreign regulatory officials, on a reduction of the burden of inspection of manufacturing facilities by foreign officials, and on improved product approval procedures.

The GATT also presents the opportunity under the current Uruguay Round of trade negotiations to deal with other telecommunications trade issues, particularly the services-related barriers. We are currently working towards a broad GATT framework for all services that would liberalize trade and discipline in the services area, and we intend to apply that broad framework to specific areas. One that will rank high on our list is telecommunications services.

Bilaterally, of course, we have been very active as well. In addition to Japan and Germany and other countries in Europe, the Administration has spent a good deal of time on telecommunications issues with Canada as part of the recently concluded Free Trade Agreement or FTA.

In the course of the FTA, the U.S. private sector pointed to two areas, one with two subsets, that were of concern to them in the telecommunications area. The first was telecommunications services.

With respect to services, the FTA includes a chapter on services that applies to, among other things, enhanced and computer services. We negotiated a separate annex for telecommunications as well in order to clarify the application of the general services chapter to this sector.

The Annex is a forward-looking document that focuses on two major areas of concern for firms of one country that wished to provide services in the market of the other country. These are: First, the ability of firms to obtain access to and use of the telecommunications transport system; and, second, possible anticompetitive behavior on the part of any telecommunications transport monopoly.

To address these concerns, the telecommunications annex provides for national treatment guaranteeing access to and use of the basic telecommunications transport services.

Regarding possible anticompetitive behavior, the annex provides for the implementation of effective safeguards to guard against this conduct.

We think the telecom annex is particularly important not only for its relationship to Canada but also as an example for agreements that we might negotiate with other countries. This is a path-breaking agreement, one that was very difficult, if for no other reason than because definitional issues abound. There are a whole series of differences in interpretation.

However, given the symmetry between the two countries, and I might add a symmetry that does not exist in most cases between the United States and other countries, this was a services agreement that we were able to negotiate and one that should serve as a good model not only on a bilateral basis but also in the GATT.

With respect to the equipment side of telecommunications, our success was somewhat mixed. In the tariff area we were, of course, able to achieve the elimination of tariffs. In many cases those are immediate eliminations upon acceptance by both countries of the FTA itself. In other cases, the tariff cuts will go into effect and be completed by 1991. Finally, there are some others that will go into effect in stages over five or 10 years.

On the procurement side, as the Chairman noted, we were, unfortunately, less successful. Despite our continued pressure during the negotiations, the Canadians were just unwilling to accept open and competitive procurement procedures for Bell Canada without similar action by the United States for privately-held U.S. firms. We were simply not willing to accept that as a quid pro quo, and so the procurement deal could not be cut.

I might add, though, that this is simply not the last we expect to see of this issue. We have already said publicly that we intend to raise the equipment procurement issue with the Canadian government at some appropriate future date.

In addition to Canada, we have focused much of our work on the European Community. I mentioned earlier our efforts in the Government Procurement and Standards Codes. Much of this effort is concentrated on the Europeans.

In addition, we have met with the EC numerous times at the policy and technical levels to seek early liberalization of the EC market.

With the issuance of its so-called Green Paper on telecommunications, the EC has charted a course for achievement of liberalization and a full internal EC market by 1992. We have made clear that any liberalization of the sector should be extended to non-EC countries.

We have also urged adoption of open, nondiscriminatory procurement rules, and we have said that European telecommunications administrations should not be allowed to cross-subsidize.

Finally, we have urged a broad and stable definition of services to be permitted to be offered competitively so that our firms may have the greatest possible chance to compete in the marketplace there.

The EC is an area of serious and constant effort for us, and it is an important market for U.S. firms. Those firms have been particularly helpful in the administration's efforts to identify barriers, develop goals and strategies, and measure success.

Throughout the process of consultation, negotiation and bilateral and multilateral discussion, the participation of our private sector has been invaluable. Firms have been willing to lend their technical expertise and to help train the non-telecom experts in government so that we can become more effective spokesmen and negotiators for U.S. interests. We trust this close, cooperative process will continue as we work towards opening foreign markets.

In conclusion, I wish to thank the subcommittee for this opportunity to testify. We have been active multilaterally, including in the GATT, and bilaterally with important trading partners in Canada, Europe, Japan, and elsewhere. We intend to continue to work closely with the private sector and the Congress to pursue vigorously U.S. trade interests and our rights under U.S. trade laws and international agreements.

[The statement and questions and answers follow:]

STATEMENT OF MARIAN T. BARELL, DEPUTY ASSISTANT U.S. TRADE REPRESENTATIVE

Mr. Chairman and members of the Subcommittee:

My name is Marian Barell and I am Deputy Assistant United States Trade Representative for Industry. The Office of the United States Trade Representative appreciates the opportunity to appear before this Subcommittee to discuss the important issue of international trade in telecommunications. I would like to focus my remarks today in three areas—first, the importance of telecommunications trade to the overall health of the economy and the effects of market barriers on our competitiveness. Second, I will discuss some of the multilateral and bilateral efforts we have undertaken to address our telecommunications trade problems. Third, I will deal with efforts to coordinate our telecommunications strategy with representatives of the private sector. This is an important endeavor and one that represents billions of dollars to our economy in sales and jobs. This Administration is firmly committed to assisting our telecommunications sector in gaining full competitive opportunities.

The Administration recognizes the vital importance of telecommunications as the center of economic change and growth. Growth and innovation in the telecommunications industry synonymous today with the development of individual national economies and the global economy. In the United States, the telecommunications industry is of central importance to our international competitiveness in both high technology and more traditional sectors. By any measure, we are the world's leader in the production, applications and use of telecommunications equipment and services.

BARRIERS TO TRADE IN TELECOMMUNICATIONS

Notwithstanding this competitiveness, however, U.S. providers are facing serious problems. It is somewhat surprising that a sector with such dynamism is also a sector that traditionally has been more shielded from competition than most other economic sectors. Historically, the industry was organized, in most countries, on the basis of national monopolies. Such monopolies were in turn extensively regulated by government to prevent the abuse of monopoly power. However, the traditional world of telecommunications is rapidly changing—driven by technology and increased competition.

Unfortunately, progress has been a dual-edged sword for the United States. While deregulation in this country has created major opportunities for producers and consumers alike, the United States has also become the most open in the world—a situation which is partly responsible for our telecommunications equipment trade deficit of approximately \$2.6 billion in 1987. In almost all important markets, the state monopoly or state-authorized monopoly is the overwhelmingly dominant purchaser of telecommunications equipment and the only service-provider. Unfortunately, state postal, telephone and telegraph companies (i.e., PTTs), with the exception of Nippon Telegraph and Telephone Company in Japan, are not covered by the provisions of the Government Procurement Code, which provide for a non-discriminatory open-tender process for some purchases by governments. It is not surprising, under those circumstances, that we find foreign governments often directing the purchase of telecommunications equipment to their domestic suppliers, to the detriment of our suppliers. Moreover, third country products that might otherwise go to those overseas markets are re-routed to the United States, creating additional pressures here.

Similarly, the GATT Code to address non-tariff technical barriers to trade—the Standards Code—does not cover network equipment. While the Code covers government rules for attaching terminal equipment to telecommunications networks and standards for these products, at times, local attachment rules have been fashioned to restrict market opportunities to an excessive degree.

We recognize that in a world of communications systems which have evolved separately, different rules and standards among countries are going to exist. Many of these standards are dictated by individual countries' attempts to maintain the quality and integrity of their telecommunications networks. But some, we believe, are outright protectionist. By contrast, the U.S. standards-setting process provides ample opportunities for foreign interests to participate, and the FCC equipment certifications procedures are expeditious and, in most cases, virtually automatic.

To look solely at imports and exports, however as the determinant of U.S. competitiveness or an indication of market openness would be a mistake. For example, the European Community correctly cites a U.S. trade surplus with it in equipment (\$320 million in 1986 and projected at \$366 million in 1987). This surplus, the Europeans claim, is proof that their markets are open and ours are more closed than we are willing to admit. Such arguments only confuse the issue. A far better measure of market openness is the extent to which the local environment fosters competition and innovation, that is, the extent to which that environment is free from discriminatory governmental policies. It is this competitive international environment that this Administration has made such efforts to foster.

THE ADMINISTRATION'S APPROACH TO TELECOMMUNICATIONS TRADE ISSUES

What is the Administration doing to address the market openness question? What are we doing to ensure that our firms can operate freely and fairly, unhindered by government actions or policies that result in discrimination as to origin of supply?

Your other witnesses today have already mentioned a few of the initiatives—both bilateral work with Japan and through the Market Access Fact-Finding (MAFF) discussions and multilateral—which we have been pursuing to open markets abroad. I would like to discuss some others.

THE GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT)

Obtaining open market access in foreign telecommunications markets—rather than closing our market—is a top priority for this Administration. Under the auspices of the GATT (the General Agreement on Tariffs and Trade), for example, we have placed a very high priority on obtaining the coverage of PTTs under the Government Procurement Code. As I mentioned earlier, that Code requires the use of open, non-discriminatory procurement practices by governmental entities subject to Code rigors. To date, the PTTs have remained outside of the Code; they are free to

allow preferences to national firms, closed bidding procedures, and other means of favoring local over foreign supplies. We have been working long and hard in Geneva in an effort to obtain European agreement to subject their PTTs to the Code—and, based on recent meetings in the Code, we are seeing some signs of progress.

With respect to technical barriers, to trade—standards—we are concentrating much of our multilateral Code work on achieving agreement on issues dealing with testing, inspection and product approval. With respect to testing, we are seeking acceptance of U.S.-generated test data by foreign regulatory officials. In the area of inspection, we are seeking to minimize the burden of inspection of manufacturing facilities by foreign officials. Last, with regard to product approval, we are seeking the extension of current GATT Standards Code obligations and principles to procedures used by foreign regulators.

Within the Uruguay Round of trade negotiations under GATT—launched in September 1986—we are also working hard on addressing telecommunications issues, particularly telecommunications services. For all services sectors, our priority is to develop a GATT framework that sets down some broad concepts to liberalize services trade. These broad concepts are likely to include:

- The principles of national treatment and open market access;
- The transparency and negotiability of barriers to trade in services;
- The role of monopolies, including their role as a competitor in a market outside of their monopoly responsibility;
- Transparency and non-discriminatory application of domestic regulation; and
- Procedures for consultations on emerging issues and the resolution of disputes, enabling this agreement to be contractually binding.

Once we have agreement on this framework, we would then turn our attention to applying these general principles to specific sectors. Because of the significance of telecommunications services in themselves and as inputs for other service and merchandise sectors, we intend for telecommunications services to be among the first of these sector-specific agreements. This will be a difficult venture, but it is important that we be willing to expend the time and effort in this direction, in light of the growing importance of the telecommunications services industry.

BILATERAL EFFORTS

Within the bilateral arena, of course, *Canada* looms large. I should note at the outset that the Canadian telecommunications market offers a somewhat different set of issues compared to those we face with some of our other trading partners, especially the Europeans. There exists a great deal of symmetry between the U.S. and Canadian telecommunications markets in general. Consequently, in the recently-concluded Free Trade Agreement (FTA), we did not need to address as broad a range of problems as has been the case in other bilateral discussions. In the context of the FTA, U.S. industry identified the major problems they face in Canada as services-related and, with respect to equipment, tariff and procurement barriers.

For telecommunications services, the FTA includes a chapter on Trade in Services that extends to a wide variety of services sectors, including enhanced and computer services. In order to clarify how the principles of the Services Chapter apply to enhanced and computer services, a separate Annex for this sector was negotiated with the Canadians. The Annex applies to intracorporate data flows as well as to enhanced and computer services, i.e., to users of the telecommunications transport network.

The annex is a forward-looking document that focuses on two major areas of concern for firms of one country wishing to provide services in the market of the other country. These are, first, the ability of firms to obtain access to and use of the telecommunications transport system and, second, anticompetitive behavior on the part of any telecommunications transport monopoly.

With regard to the first concern, the Annex provides for national treatment guaranteeing access to and use of the basic telecommunications transport services, including flat-rate, leased private line service. National treatment as a principle of the Sectoral Annex is based on agreement by the two parties that the existing regulatory environment between them is relatively free and open for this sector. With regard to the second concern, possible anticompetitive behavior of federally-regulated monopolies, the Annex provides for the implementation of effective "safeguards" to ensure that any monopoly provider of the basic telecommunications service will not engage in anti-competitive conduct vis-a-vis its competitors in the provision of enhanced services. Steps are to be taken to prevent cross-subsidization, predatory pricing and discriminatory access to network facilities and services.

In assessing the immediate impact of the telecommunications services agreement, we think its benefits are:

Assurance, through the national treatment provision, that the benefits of further liberalization in Canada will be conferred on U.S. firms as well;

A guarantee, through implementation of safeguards, that telephone companies will not be able to monopolize the provision of enhanced and computer services; and

stabilization of the regulatory environment for the U.S. business community.

Taken together, the existing market access provision, assurance that no new regulations can serve as disguised trade restraints, and the guarantee of national treatment all create a situation where the only movement can be in a liberalizing direction. Finally, although, as I noted earlier, this agreement is premised on a relatively open market between the two Parties—a situation that is duplicated with respect to few countries around the world—I believe it can serve in part as a model for the negotiation of a GATT sectoral agreement on telecommunications services.

On the equipment side, a priority area for U.S. telecommunications producers was the elimination of telecommunications tariffs. The FTA provides that tariffs in both the United States and Canada will be eliminated within ten years. This is especially important for the United States, because Canada's telecommunications equipment tariffs are in most cases twice as high as ours. Approximately sixty percent of U.S. telecommunications exports will benefit from an immediate elimination of tariffs, once the FTA agreement goes into effect. Tariffs on central office switches will be completely eliminated by 1991. All remaining tariffs will be eliminated in stages over five or ten years.

This was not an easy accomplishment and, in fact, was one we were able to obtain only at the eleventh hour on the last day of the negotiations. Based on this achievement, AT&T and others have announced their public support for the FTA.

Another negotiating priority was to obtain a Canadian commitment that open and competitive procurement procedures be established for Bell Canada, Canada's largest telecommunications local service monopoly. While we pursued this subject throughout the negotiations, the Canadians were just unwilling to take this step. In essence, they opposed the imposition of such procedures on Bell Canada, a privately-owned company structured in the same way as AT&T in the pre-divestiture period, unless the United States was willing to adopt similar procedures for our telecommunications carriers—AT&T, the regional Bell and GTE operating companies, and companies like U.S. Sprint and MCI. The Administration believed it inappropriate to go as far as the Canadians wanted.

Regarding next steps with Canada, we have publicly stated our intention to raise the equipment procurement issue again with the Canadian Government at some appropriate future date. We have asked U.S. manufacturers for their ideas on how such discussions might proceed and we expect to meet with them soon to formulate our approach.

Overall, we in the Administration believe the FTA is a significant step forward in telecommunications trade in goods and services between our two countries. U.S. industry has come to the same conclusion.

Another area to which the Administration in general and the U.S. Trade Representative's office in particular have devoted significant effort and attention is the European Community. In addition to our GATT efforts, we have convened a number of policy- and technical-level bilateral meetings in an attempt to obtain commitments regarding liberalization of the European market as a whole.

In June of last year, the European Commission issued its Green Paper on telecommunications—a working document that would serve as the basis for future policies and procedures in the telecommunications sector. Although we have been impressed by the speed with which the Commission has been moving ahead with implementation of its internal market plan, we still have serious problems with the substance of some aspects of that plan. As a result, the Administration, along with numerous U.S. firms and trade associations, have pressed for a number of improvements.

First, we have said that any liberalization of the sector should be extended to non-EC countries. We are extremely concerned that, as the EC moves toward the creation of a common internal telecommunications market, that the market be open to international, and not just intra-European, competition. Second, we have made clear that any liberalization should include the application to the European procurement of open, competitive bidding by all potential suppliers. Third, we have said that European telecommunications administrations should not be allowed to cross-subsidize their sales of terminal equipment or their provision of value-added services with revenue received from monopoly services. Finally, we have urged a broad and stable definition of services that will be permitted to be offered competitively, in order to

allow the widest possible participation in the marketplace by non-monopoly providers.

Although we are a long way from achieving our full objectives in Europe, there is reason for some optimism. European officials have indicated that they do not intend for EC telecommunications integration to result in a Europe insulated from world competition. In addition, in an early March U.S.-EC telecommunications meeting held at sub-Cabinet level, we were able to reach certain informal understandings regarding, for example, negotiations toward European acceptance of U.S. test data and recognition of U.S. labs. Also important was the tacit acceptance of observers to the new European Telecommunications Standards Institute from U.S. standards bodies. With respect to equipment procurement issues, the EC has indicated that certain internal changes will take place before the 1992 deadline set for overall integration, but it is not clear whether any of those changes will help producers attempting to export from the United States.

We have a long way to go with the European Community, and the Administration expects that negotiations to improve the environment for U.S. telecommunications equipment and services will be difficult. Nonetheless, we are committed to success and are taking every opportunity to achieve our objectives.

PRIVATE SECTOR PARTICIPATION

Throughout the process of consultation, negotiation and discussion, the participation of our private sector has been vitally important. Private sector representatives have been instrumental in the establishment of U.S. negotiating objectives, have educated us about individual markets and, in some cases, have participated in bilateral consultations and provided technical expertise. A group comprised of all agencies that have an interest in telecommunications trade matters has worked closely with:

A variety of trade associations, including the Chamber of Commerce, the U.S. Council for International Business, the Computer and Business Equipment Manufacturers Association, the Electronics Industries of America and the American Electronics Association;

The officially-constituted private sector advisors in the Electronics and Telecommunications Industry Sector Advisory Committee and the Labor Steering Committee; and

Individual firms

to develop goals and strategies for achieving those goals. That process is working well, with firms anxious to lend their technical expertise to U.S. negotiators, as well as to U.S. embassy personnel preparing for overseas assignments. Many of these same companies were instrumental in our achieving the overall successful result in the U.S.-Canada FTA, and they are playing an active role in WATTC- and GATT-related deliberations.

Our private sector has been invaluable to us in our efforts to open the overseas markets. Moreover, many of them are aggressively attempting to penetrate those markets by offering superior products, technology and quality.

CONCLUSION

I wish to thank the Subcommittee for the opportunity to testify on an issue this Administration considers to be one of fundamental importance to our present and future trade policy. Over the past few years, we have intensified efforts with our trading partners in bilateral and multilateral negotiations to convince them to improve market access opportunities in telecommunications equipment and services. We continue to press in GATT negotiations for overseas market liberalization. We have had successes in Canada and Japan and are continuing to pressure the EC and individual countries to provide full and fair opportunities. We will continue to pursue vigorously U.S. trade interests and rights under U.S. laws and international agreements and will ensure that other countries live up to their trade agreements with the United States. And, we intend to continue to work effectively with the private sector and the Congress to craft the best possible approaches for achieving our telecommunications trade objectives.

QUESTIONS OF SENATOR INOUE AND THE ANSWERS THERETO

1. Q: Last year at the Subcommittee's international telecommunications hearing, there was extensive discussion about the switch market in France and whether AT&T would be permitted to purchase the French firm, CGCT. As we all know, AT&T was not selected, even though the U.S. government tried to help. What lessons did we learn from this effort, and what role should the U.S. government play in the future?

A: One of the key operating principles underlying the intense pressure levied by the Germans on the French government was the notion of finding a "European solution". Though it is interesting to note that, in the final outcome, the winner was a non-EC firm, this same principle of "Europe for the Europeans" has been surfacing with increasing frequency as the European Community forges ahead in its plan to create a common internal market by 1992.

In the CGCT affair, the French government made clear its resentment of the overt pressure being generated by the German government. The USG, in consultation with AT&T, determined that a similar approach of overt pressure would be counterproductive to AT&T's efforts. It is important to note that the Germans were ultimately unsuccessful in having CGCT purchased by a German firm. The appropriate role for the U.S. government in such future cases must necessarily be determined in light of the specific circumstances prevailing at the time.

2. Q: At last year's Subcommittee hearing on international telecommunications, Ambassador Woods of the U.S. Trade Representative's Office described our efforts to open and enter the telecommunications markets of the European Community. A Wall Street Journal article on March 31, 1988, discusses the current state of telecommunications deregulation in these markets and concludes: "Don't hold your breath. The EC campaign to untangle Europe's rule-bound phone markets is encountering heavy flak, less than a year after its much publicized launch". What do you think of this article's conclusion?

A: Such a conclusion is premature. In the telecommunications sector, the EC is only now beginning the process of issuing directives to the Member States to implement the policies set forth in the Commission's plan for a liberalized internal telecommunications market. The USG has commented on these plans, and engaged in a continuing dialogue with the Commission as to their implementation, which will be carefully monitored. In the course of this dialogue, the Commission has stated clearly its intention to maximize the use of its authority under the Treaty of Rome to push its program through. In some instances, for example on deregulation of the terminal equipment market, the Commission has publicly and forcefully stated that it will issue directives directly to the Member States, using its authority under the anti-competition articles of the Treaty of Rome, thereby being able to implement deregulation policy directly by foregoing the more cumbersome procedure of obtaining EC Council approval. It is true that the stated intentions of the Commission have been encountering heavy opposition from PTTs, labor unions, and other potent political forces in Europe, but the Commission has thus far not compromised in its stated intentions. But to date, both the publicly stated Commission intentions and the heavy flak from the opposition represent only words, and not actions. The first real tests will come in the next three to six months as the Commission begins the process of issuing directives to implement its program in the announced timetable. A judgement should wait until the first guns are fired and Commission intentions are truly tested.

Free Trade Agreement with Canada1. QUESTION:

In the Free Trade Agreement, the U.S. was unsuccessful in opening procurement to Bell Canada. The Canadians have argued that the relationship between Northern Telecom and Bell Canada is similar to that between Western Electric and AT&T, yet the U.S. did not offer to have a similar open procurement arrangement for AT&T. Do you believe the situations of Bell Canada and AT&T are similar? What percentage of equipment purchases does Bell Canada make from Northern Telecom and AT&T from Western Electric?

ANSWER:

There is a significant difference between the situations facing Bell Canada and AT&T. While both companies are vertically-integrated, Bell Canada is a monopoly supplier of both long distance and local telephone service. AT&T, on the other hand, faces competition in the long distance market from companies like MCI, Sprint and others, and no longer supplies local telephone service. This competitive environment forces AT&T to purchase technically suitable products at the lowest life-cycle costs consistent with its policy to be the low-cost supplier of telecommunications services.

Bell Canada, as a monopoly service provider, faces indirect pressure to buy the cheapest products available through regulatory oversight of Canadian Radio-television and Telecommunications Administration (CRTC). The CRTC requires Bell Canada to purchase products from companies other than Northern Telecom only if Northern cannot or will not supply the product at prices as low as those offered to any other customers in Canada. As it is believed that telecommunications equipment prices in Canada are generally higher than in the United States, Bell Canada is able to offset these higher equipment costs through its monopoly services revenues.

The precise percentage of in-house purchases by Bell Canada and AT&T is not available. However, according to Northern Telecom, in 1984 they supplied 77 percent of Bell Canada's telecommunications purchases. U.S. industry (CBEMA) claimed the number was 85 percent.

QUESTION:

Are Bell Canada's operations similar to that of the post divestiture AT&T or the pre-divestiture AT&T? If it is similar to the latter, the equipment purchases of the Bell Operating Companies must also be considered. What percentage of their equipment comes from Western Electric from other suppliers?

ANSWER:

The structure of Bell Canada's operations is similar to that of AT&T prior to the divestiture, as it is a monopoly provider of local and long-distance telephone services. Consequently, the equipment procurement policies of the Bell Operating Companies (BOCs) are relevant. The Modified Final Judgement (MFJ) prohibited the BOCs from manufacturing equipment. Moreover, to wean the BOCs from exclusive dependence on AT&T equipment, the MFJ specifically forbids the BOCs from discriminating in favor of AT&T with respect to equipment procurement. All the BOCs have established open and competitive procurement policies.

No precise percentages exist on the amount of equipment the Bell Operating Companies purchase from AT&T Technologies, but is widely believed to be significantly over 50 percent. The FCC's recent order and notice of inquiry to gather data on U.S. carrier procurement activities will provide a means to answer this question more definitively.

QUESTION:

The Canadians also argue that Northern Telecom has made the effort to manufacture equipment in the U.S., while U.S. firms propose to sell only U.S. made goods in Canada. Do you believe this fact deserves significant weight?

ANSWER:

From a commercial standpoint, the location of manufacturing facilities potentially can be a relevant factor, especially for more sophisticated telecommunications equipment like central office switches, depending on the similarity or difference between the telecommunications network architecture in the home market and the export market. In the case of Canada and the United States, however, this factor does not deserve much weight given the proximity and similarity of network architecture in the two countries.

There are several reasons for the disparity in the level of investment by the U.S. telecommunications industry in Canada and the Canadian industry in the United States. The Canadian market is roughly 10 percent the size of the U.S. market. Thus, the amount of Canadian investment in the U.S. would obviously be much higher in comparison to U.S. investment levels in Canada. However, Canadian federal and provincial government investment rationalization requirements tended to discourage U.S. investment in Canada via various performance requirements. Thus, U.S. investment was less than what might otherwise be expected.

Upon implementation of the Free Trade Area Agreement, though, the federal government rationalization requirements will be eliminated which should encourage greater U.S. investment in Canada. Thus, the location of telecommunications equipment manufacturing facilities is not necessarily the issue here. Assuming investment decisions are permitted to be made on economic, rather than political, grounds, the level of commitment and aggressiveness required to adequately serve the needs of the market are more important factors.

QUESTION:

In the Free Trade Agreement, the U.S. was successful in achieving its goal on the elimination of tariffs over a ten year period. How much will this improve our telecommunications trade balance with Canada? Will any value to the U.S. be decreased because we did not achieve our open procurement objective?

ANSWER:

Much of the answer to the first question depends on U.S. firms themselves and how aggressively they take advantage of new market opportunities in Canada. On the second question, as Bell Canada represents about two-thirds of the Canadian market, it obviously is an important market segment for U.S. industry and any limitations on market access opportunities could have obvious negative trade effects. The rest of the Canadian telecommunications equipment provides opportunities for U.S. industry, though, and certain U.S. firms already have had some success there as some have had in selling to Bell Canada market. But, given the much more dispersed nature of the non-Bell Canada market, the Bell Canada market offers the most significant opportunity for U.S. industry.

3. The U.S. has succeeded in the Free Trade Agreement in completing a trade in services agreement regarding the provision of information services. The language, however, is vague on what constitutes discriminatory activities that are in violation of the agreement. What is the U.S. position on the types of activities that should be considered discriminatory? How will disputes be resolved?

Generally speaking, discrimination in this context is a denial of national treatment, defined in the agreement as treatment by a Party no less favorable than accorded by the Party in like circumstances to its own citizens. (With respect to a province or a state, national treatment means treatment no less favorable than the most favorable treatment accorded by such a province or state in like circumstances to persons of the Party of which it forms a part.)

Importantly, national treatment in the Free Trade Area Agreement applies in three ways to enhanced and computer services (the term "information services" is not used in the agreement, although information services are considered to be a subset of enhanced services). National treatment extends to (1) services provided on a cross-border basis (right of non-establishment); (2) services provided by a firm now established in Canada (right of establishment); or (3) services provided by a firm through limited physical presence sufficient to carry out its activities on a cross-border basis (right of commercial presence).

Services are subject to the same dispute settlement mechanism as provided for goods, a pathbreaking aspect of the Agreement. This is the first time that a legally binding dispute settlement mechanism established for goods has been extended to services. Services negotiators have long maintained that trade disciplines for resolving disputes involving trade in goods could be applied to services trade issues as well.

The dispute settlement process for both goods and services includes

- establishment of a Canada-U.S. Trade Commission composed of representatives of each Party (official primarily responsible for international trade);
- written notification of proposed or actual measure;
- initiation of procedures (if Parties fail to resolve the matter through consultations within 30 days);
- binding arbitration;
- right to suspend application of equivalent benefits to noncomplying Party.

As applied to the enhanced and computer services market, a Party that believes that a measure of the other Party discriminates against one of its citizens would notify the other Party of its complaint. The two would discuss the issue to see if it can be resolved. If the two cannot reach agreement, the Party would formally bring the issue to the Commission for binding arbitration and, upon a decision of the Commission, would take whatever remedial action allowed by the decision of the tribunal.

4. While the U.S. successfully reached its goal on information services, the Free Trade Agreement does not address the provision of basic telephone service. Did the U.S. believe that it should pursue an agreement in this sector?

Note: The term "information services" does not appear in the agreement, which is formally titled Computer Services and Telecommunications-Network-Based Enhanced Services. Information services are considered a subset of Enhanced Services.

The U.S. was willing to consider extending the Agreement to cover basic services if the Canadians were to agree to allow the same degree of openness in basic services as is permitted in the United States. The Canadians maintain, however, that they are unwilling to open their basic services market, which is currently closed to foreign competition. For the United States to have negotiated basic services under such circumstances would, through the national treatment obligations of the Agreement, have served to freeze in place the current disparity between the two regimes. U.S. negotiators, strongly supported by the business community, were unwilling to enter into such a negotiation.

While the Agreement does not include the competitive provision of basic long-distance services, it does extend to the behavior of the basic service provider vis a vis firms wishing to make use of basic services. The agreement, for example, obliges the Parties to ensure that firms of the other Party have the same access to and use of the telecommunications transport network as the Party's own citizens. The Agreement also commits both Parties to put in place "safeguards" that discipline the actions of monopoly providers of basic telecommunications services (the telephone companies) that also compete in the provision of enhanced or computer services. These safeguards are intended to ensure that other providers of enhanced and computer services who may compete with the monopoly or its subsidiaries do not face unfair competition in the form of cross-subsidization or predatory behavior.

QUESTIONS OF SENATOR PACKWOOD AND THE ANSWERS THERETO

Question: What steps has the U.S. Trade Representative taken to encourage foreign countries to open their markets to U.S. telecommunications firms?

Answer: The Office of the U.S. Trade Representative has been active in a number of bilateral and multilateral efforts to open foreign markets to U.S. telecommunications firms.

On the bilateral front, the recently-concluded Free Trade Agreement (FTA) with Canada includes a chapter on trade in services that extends to a wide variety of services sectors, including enhanced and computer services. In order to clarify how the principles of the services chapter apply to enhanced and computer services, a separate annex for this sector was negotiated with the Canadians. This annex provides for (1) national treatment guaranteeing access to and use of the basic telecommunications transport services and (2) implementation of effective "safeguards" to ensure that any monopoly provider of the basic telecommunications service will not engage in anti-competitive conduct vis-a-vis its competitors in the provision of enhanced services. Steps are to be taken to prevent cross-subsidization, predatory pricing and discriminatory access to network facilities and services. This telecommunications agreement should ensure that any market access benefits available to Canadian services providers will also be available to U.S. firms. In addition, U.S. firms should be able to operate in an atmosphere free of anticompetitive behavior.

With respect to equipment in the FTA, the negotiated elimination of tariffs should enhance the competitiveness of U.S. suppliers. Although we were unable to achieve improvements in Bell Canada purchasing practices, U.S. firms have already had some successes in selling to Canadian purchasers outside Bell Canada's jurisdiction. In addition, Chapter VI of the FTA on technical standards covers all products, including telecommunications terminal equipment. The provisions of that chapter go beyond the GATT Standards Code obligations and envision bilaterals in which we seek acceptance of test data.

In Japan, USTR has negotiated an extension of the bilateral agreement on government procurement which requires Nippon Telephone and Telegraph Company to employ open, non-discriminatory procurement procedures. The NTT agreement has resulted in more than one billion dollars' worth of sales by U.S. firms to Japan which otherwise would not have occurred. In addition, at the conclusion of the NTT Agreement, the United States and Japan also issued a Joint Statement on Interconnect Issues. The Interconnect Statement paved the way for the liberalization of the Japanese terminal equipment market. Finally, USTR provided technical expertise to the Market Oriented Sector Selective (MOSS) talks on telecommunications, which also improved market opportunities in Japan.

Within Europe, USTR has worked on two levels, i.e., with individual members states and with the European Commission itself. We have participated in -- and in some cases, led -- consultations with European governments and the European Commission designed to open those markets to U.S. sales. In meeting with individual countries, USTR staff has provided technical expertise on standards- and procurement-related issues. On the Commission level, Deputy USTR Michael Smith has chaired two rounds of consultations in an effort to influence the policymaking process in the internal market exercise. USTR Yeutter has met on several occasions with European officials to stress the importance of market liberalization and the need to make telecommunications purchasing decisions based on commercial rather than political considerations. In our bilateral discussions at both levels, we stress that European markets must be as open as ours. There appear to be major reforms in progress which we hope will create new market opportunities for U.S. firms.

Finally, in Korea, the meetings of the U.S.-Korea Trade Subgroup have offered an opportunity to raise our telecommunications-related concerns, including Korean local content requirements and other barriers to market entry.

On the multilateral front, USTR has led a U.S. Government-wide effort to promote greater coverage of telecommunications by the international codes on Government Procurement and Technical Barriers to Trade (Standards), under the auspices of the General Agreement on Tariffs and Trade (GATT). In government procurement, the United States is seeking, inter alia, coverage for the major government purchasers of telecommunications equipment. Until recently, these negotiations showed little sign of progress. Developments in the EC's internal market, however, have given a new impetus to the Code negotiations, where, for the first time, the EC and other major trading partners are taking an active role. In the standards area, in 1985, the United States introduced a draft "Multilateral Agreement on Telecom Terminal Equipment." The draft is a model agreement that would open the terminal equipment markets of all signatory countries.

In addition, under the current, Uruguay Round of trade negotiations under the GATT, the U.S. Government, led by USTR, is seeking a GATT framework that establishes broad concepts governing all services trade. Our priority in negotiating a GATT services framework is to develop general principles that will serve to liberalize services trade. These broad concepts are likely to include

- (1) national treatment and open market access,
- (2) disciplines on the role of monopolies, including their role as a competitor in a market outside their monopoly responsibility,

(3) transparency and non-discriminatory application of domestic regulations, and

(4) procedures for consultations on emerging issues and resolution of disputes, enabling this agreement to be contractually binding.

Once we have agreement on this framework, we will turn our attention to applying these general principles to specific sectors, particularly telecommunications services.

The USTR's office has also been actively involved in the work of the U.S. delegation to the International Telecommunication Union's World Administrative Telephone and Telegraph Conference (WATTC 88), scheduled for November of this year. This office has concentrated on ensuring that any regulatory regimes adopted by the WATTC will not serve as unjustifiable barriers to international trade in telecommunications.

QUESTION OF SENATOR MCCAIN AND THE ANSWER THERETO

QUESTION: I UNDERSTAND THAT MANY FOREIGN COUNTRIES PROHIBIT MARKET ENTRY BY COMPETITIVE U.S. LONG DISTANCE TELEPHONE COMPANIES. OTHER COUNTRIES CHOOSE ONLY ONE U.S. CARRIER IN A BIDDING PROCESS. MANY COUNTRIES FORBID RESALE AND SHARED USE OF PRIVATE LINES. THIS SITUATION RETARDS THE DEVELOPMENT OF COMPETITION IN THE INTERNATIONAL LONG DISTANCE MARKET. WHAT SPECIFICALLY IS YOUR AGENCY DOING TO DISCOURAGE OR CHALLENGE THESE ANTICOMPETITIVE POLICIES FOR THE BENEFIT OF AMERICAN ENTERPRISE IN TELECOMMUNICATIONS SERVICES

ANSWER: The questions raised refer to problems encountered by U.S. carriers attempting to offer basic services internationally - by establishing facilities within a foreign market, through a joint operating agreement with a foreign telecommunications administration, or through resale or shared use of private lines within a foreign country.

Basic telecommunications service in most countries outside the United States is currently provided by a telecommunications administration, which is usually a state-owned or -run monopoly. Most foreign governments view the provision of basic service, domestically and internationally, as an issue involving questions of national sovereignty (public policy and national defense) which are not appropriately addressed in a trade forum. Moreover, foreign telecommunications administrations face few restrictions in providing their service internationally to the United States, and so have little incentive to open their markets to competitive U.S. long distance telephone companies.

Given the reluctance of foreign governments to discuss provision of basic services internationally in a trade context, as well as the fact that their carriers already enjoy access to the U.S. market, trade discussions have tended to concentrate on increasing provision in the newer telecommunications network based services - what we in the United States call enhanced and what many other countries call value-added and information services. Discussion of enhanced services has taken place in numerous bilaterals, including discussions with the Germans, the French and the EC, as well as in the U.S.-Canada Free Trade Agreement where a separate sectoral annex on the subject has been signed between the two Parties.

Discussions on liberalizing the environment for enhanced services focus on the terms and conditions by which the basic telephone monopoly makes available access to and use of the telecommunications transport network to the enhanced service provider. They also focus on implementing safeguards to ensure that the monopoly provider of the basic services does not engage in anticompetitive practices in its relations with firms that may compete with its own affiliates in the field of enhanced services.

Senator EXON. Ms. Barell, thank you very much.

We expect the Chairman back shortly, and we will proceed with questions.

First, Ms. Barell, to follow up on your excellent testimony, let me get into this whole matter of trade and what we are or are not doing right now.

I am particularly pleased that Senator Packwood is here this morning because this is an extremely timely hearing. I know that Senator Packwood and Senator Bentsen have worked very, very hard on the trade bill that I think is at the crossroads as of right now. I think it is at a crossroads because of stupidity on the part of people outside of the Congress.

We have demonstrated our stupidity over the years in many, many ways. Certainly with the leadership of Senator Packwood and Senator Bentsen and their counterparts on the other side of the Hill, I think we have worked very hard to fashion a bill that would be so helpful in the basic area of trade that we are talking about.

That is another subject, but I just wanted to say, Senator Packwood, I want to salute you for the good job you have done, and I think that the next day or two are particularly critical in this area.

I would say that I hope most of you, as representatives of the administration, will take back the clear signal that we should put politics aside both here and at 1600 Pennsylvania Avenue and get on with this trade bill. It is a very moderate one from the standpoint of protectionism, that has been the cry that we have heard.

It seems absolutely ridiculous to me after all the battles that I have been through at a much lower level than what Senator Packwood and Senator Bentsen have been working on. Nevertheless as one of the foot soldiers in that battle, we have worked extremely hard, and to think that we are down to a situation where a 60-day plant closing could derail a bill that we have spent three and a half years trying to work out is just a tragedy, and it is going to be a worse tragedy for America.

I just hope and I appeal to both sides to see if we cannot come up with a compromise.

Along those lines, let me ask you, Ms. Barell, whether you think that the proposed Free Trade Agreement with Canada is fair to U.S. telecommunications concerns, since that is what this hearing is about this morning and, if you think it is, why?

I would like to have any of the other members of the first panel this morning expand on that if they have any views.

Ms. BARELL. As I noted in my testimony, we do think that it is a very fair agreement over all with respect to this industry as well as to the broad range of U.S. industries.

There are obviously some areas where we would have liked to have seen some better results from and areas where we were particularly happy with what we achieved.

I think on balance it is a very helpful agreement and one that will enable trade to move in both directions more freely and will, in fact, expand opportunities for firms, particularly in our case, as is our interest here, for U.S. firms and for U.S. workers.

With respect to telecommunications in particular, it is an extremely important agreement. On the services side we have negoti-

ated a groundbreaking agreement that does provide for the principle of national treatment, does safeguard against monopolies. Basically, it affords the opportunity that if there are improvements in the marketplace in Canada, those improvements will be shared equally in terms of opportunity by U.S. firms as well as by Canadian firms. It is a good example for other agreements that we might negotiate.

On the equipment side, as I noted we were not able to get everything we wanted, but the tariff cuts, in particular the immediate tariff cuts, cover something like 60 percent of U.S. exports to Canada of telecommunications equipment. Other cuts will take place rapidly, more rapidly than in the case of other sectors that are covered by the agreement over all.

Certainly, we will have the assurance that within 10 years time all of those tariffs will have been eliminated. Frankly, in most cases Canadian tariffs are higher than those of the United States, and so we are getting a bit more in this area than perhaps we are giving.

I think on balance it is a very good agreement and one that is quite positive for U.S. interests.

Senator EXON. Ms. Barell, to go afield for just a moment, you just used the term "a good agreement on balance".

Do you think that the United States Free Trade Agreement with Canada is also on balance as far as agriculture is concerned?

Ms. BARELL. Well, that is frankly not my area of expertise.

Senator EXON. I do get into that just a little bit.

Ms. BARELL. Yes, I know that, sir.

Senator EXON. I would just like to send a message that while we are going on this merry fast track of approving that trade agreement with Canada, I think the signal should be taken back to your agency that there is deep concern among the agricultural Senators that this is not a fair agreement as far as agriculture is concerned.

I will tell you that that agreement that everyone assumes is going to sail through unimpeded is in more trouble, I think, right now than a lot of people want to recognize. That is another reason I would say, Senator Packwood, that the administration had better not be so unbending as it has been in certain areas because if we fail in this package that you people have put together, I am afraid I think there is going to be a lot of problems to come on down the road.

My last question will be specific, and I will ask anyone on the panel to comment about this.

Telecommunications are not far different in the devastating place they have found themselves in with regard to imports. In 1980 we were a big exporter with a big trade surplus, but the latest reporting period indicates that imports are at \$4.7 billion and exports are \$2.7 billion.

Is there any single fundamental reason for that other than the high value of the dollar? If so, what?

Mr. SIKES. I will take a shot at that, Senator Exon.

First of all, I think that we have to understand there is a lot of outsourcing that goes on by U.S. companies. I think that is a big part of it.

I think, secondly, we liberalized what is called the customer-premises equipment market, and we have seen a literal explosion of consumer level telecommunications equipment come into this market from Korea, from Taiwan, from Singapore, and the countries that frequently take advantage of this market in consumer products.

Thirdly, when the AT&T divestiture occurred and what was generally perceived to be the world's single most significant trade barrier was eliminated with several strokes of the pen, I think that also contributed to what we have today.

If I were, in summary, to assign reasons, it would be the explosion of Far East customer premises equipment procured here by consumers, outsourcing by U.S. companies and, thirdly, the divestiture that occurred and the barrier that was eliminated without a quid pro quo from our foreign trading partners.

Senator Exon. Thank you.

Senator Packwood.

Senator PACKWOOD. Let me start with Ms. Barell. This is a philosophical question, and the others can address themselves to it if they desire.

Sometimes the overseas markets we are attempting to penetrate, such as rice in Japan or citrus or beef or insurance in Korea, are not a government monopoly. But, they are protected by government laws so that indigenous producers or sellers have an advantage.

Normally in those markets, they do not attempt to sell in the United States. We have approached Korea on insurance. They do not sell insurance here, so it is hardly a quid pro quo to say, "well, if you will not let us sell insurance in Korea, we will not let you sell insurance in the United States." They say, "such a deal, that is fine."

The same is true by and large with rice and beef. Japan does not sell a lot of rice and beef here. So there, a tit-for-tat argument does not work because they are not interested in this market.

In some foreign markets, however, the government is the purchaser, and in telecommunications throughout the world is this often the situation. In those cases, you have to negotiate and argue with the government, not with a normal domestic purchaser.

I am curious if you think in that area tit for tat will work. We have, of course, the law on the books on construction, and that Japanese joint venture did not get part of the Washington Metro work because of this. We are very close to that in the trade bill in telecommunications. We are approaching the point where we say you will not let us in, then we will not let you in.

In those areas where foreign governments want to sell in this market and where you are dealing with government monopolies, by and large, do you think a tit-for-tat approach will work? I do not mean administrative discretion. I mean by law.

Ms. BARELL. I appreciate the distinction.

I think that the best way to answer that is to say it appears easier to do it that way, to say if you do not let us sell X in your market you cannot sell X in ours. You involve the same sector. You do not end up with the sort of problems we have now when we consider retaliation.

In a number of cases with which you are certainly familiar where we want to take some sort of retaliatory action and then find that a U.S. company says, well, why are you affecting my product, my import? My product has nothing to do with computers in Brazil. It is building tile or something like that. That does create some difficulties. It does pull a whole variety of sectors into the equation that have no interest in being involved in a trade fight.

I think the answer to the retaliation question is that it really does have to be on a case-by-case basis. We may find that in attempting to get at a European country, for example, where we have had some difficulties or some of the Far Eastern markets where we have had some problems, notwithstanding the fact that they do have manufacturers that want to sell here, there will be arrangements or relationships with U.S. firms or, with importers that may make it difficult in practice to, in fact, impose restrictions on a tit-for-tat basis.

I do think the effect is stronger because you are affecting the government. You are directly impacting that government, and that government presumably has the authority to make the changes that you are looking for. Again, it is going to have to come down to a package of measures.

Senator PACKWOOD. So what you are saying, basically, is you are better off to leave it to executive discretion rather than write it into law.

Ms. BARELL. We would argue that, yes.

Senator PACKWOOD. Mr. Borg?

Mr. BORG. I have no comment.

Mr. SIKES. I would just say, Senator, that I think there will be a persistent problem. I do not think this is a reason for closing down this sector to trade. In fact, I strongly believe to the contrary.

I think the problem is that our procurers in this country are private companies, and they are largely in competition, so they have the incentives to make the best kind of procurement. There is also no political quotient in their procurement.

I think what you outline clearly involves a political quotient, which is to say government entities typically do not procure without domestic political considerations and, secondly, monopolies do not need to make the most advantageous sort of procurement.

So I think the people well beyond us are going to continue to have to live with that problem until there is more privatization in Europe, and until there is more competition right down to the basic level of telecommunications.

Senator PACKWOOD. Well, much as we might wish for the privatization, it is not moving along as fast as we would like.

Will the approach that we have taken in construction work in telecommunications? In construction we said tit for tat, you will not let us bid, we will not let you bid. What difference does it make whether you are selling to a government monopoly if they are faced with that limitation and they want to sell in the United States?

Would the fact that it is in law be a club for the administration to use to say "we have no choice, we cannot negotiate with you in this. If you will not let us sell telephones to the Japanese market, you will not let us sell telephones in our market."

Mr. SIKES. I would say that a barrier by law is a lot easier to deal with.

Senator PACKWOOD. For you or for them?

Mr. SIKES. Again, this is more a consideration that Ms. Barell would speak to. But in my view, if there is a law that says we cannot sell into your market, then it strikes me it is a lot easier for us to deal with that than if there is a law that says you can sell into our market but the procurement is being done by government agencies so that, realistically, we are not going to sell very much.

Senator PACKWOOD. You think the fact that we said to the Japanese private enterprise providers you cannot sell in our market would not give them enough clout to bring pressure on their government to say, "for criminy sakes, let them sell in our market?"

Mr. SIKES. I think that very definitely would help.

Senator PACKWOOD. Mr. Chairman?

Mr. PATRICK. Senator Packwood, I think that one thing that we have to keep in mind is that there is a larger context. As I was listening to this conversation, which focused quote properly on the trade question, I reflected upon our own mandate, which is one that looks to broad public interest concerns domestically.

Now, to be certain, we are concerned about the restrictive trade practices and the regulatory approaches of a number of foreign administrations because they impact American telecommunication service providers.

As to this question of leverage, if you will, I guess my reaction to your question would be that one factor that we have to put into the equation is the fact that the sale of those pieces of equipment, be it CPE or core equipment or what have you in the United States, has resulted in, I think, a very substantial benefit on one side of the equation to the American people.

I think one of the great successes of the FCC's regulatory policies is probably the CPE market, where today you can acquire a telephone, if you will, a handset, for something close to what one used to have to pay in lease or rental fees for just several months.

There is a lot of very inexpensive equipment here, and much of it is manufactured in foreign markets; but, again, that is equipment that is demanded by and desired by a number of American consumers.

So I guess from our perspective, we would ask that that be placed in the equation. That, in turn, gives me some reservations about any sort of trade arrangement that does not provide for some discretion to factor in factors such as that.

Senator PACKWOOD. There is no question that the consumer could take a hit in this country. The foreign government may say, "no, sorry, we would rather protect our own market, and if we cannot sell in ours, so be it," in which case you have eliminated a source of supply and some very good, probably cheaper, probably better equipment.

Mr. PATRICK. In some cases that is the case or may be the case.

Senator PACKWOOD. Mr. Secretary, let me ask about high definition television. You have just completed a study, as I understand it, in what is may be obviously a very rapidly changing world.

What have you concluded?

Mr. SIKES. Well, the study concluded, first of all, that under optimistic but not too optimistic economic assumptions, we can expect \$150 billion of sales activity between probably the early 1990s and somewhere midway through the first decade of the next century, \$150 billion of sales activities. This is largely in consumer equipment.

Senator PACKWOOD. By that, you mean new televisions?

Mr. SIKES. That is correct, but VCRs as well because, at least as its initial introduction is anticipated, there would be a time between the television and the VCR. The VCR would be perhaps initially the sole medium through which you could get the high-definition signal.

Secondly, the future generations of television equipment are going to have more intelligence, which is not to say that programs are going to be more intelligent but that there will be more signal processing, and more memory functions within the set, which will cause there to be a lot larger demand for semiconductor products in the set.

Now, currently the Japanese semiconductor manufacturers sell somewhere between 35 and 50 percent of their yield in the consumer electronics sector. We sell 5 to 7 percent of our yield in that same sector.

So if you have a dramatically increasing demand for chips for consumer electronics products, presumably if things continue as they have in the past then you are going to find the Japanese semiconductor industry being advantaged, if the Japanese control the next generation of television equipment.

So our semiconductor industry has been particularly concerned about developments in the high-definition area.

I would say those are the principal two findings, Senator.

Senator PACKWOOD. Are you going to have any problem in worldwide standards?

Mr. SIKES. Well, there is an effort by the Japanese and by certain significant U.S. interests to accept the NHK production standard which goes to the making of the programs.

I would say on the transmission side there will be a significant battle, if you will, that will largely revolve around the transmission culture in particular parts of the world.

So I do not think there will be a world transmission standard. As a consequence, as the FCC goes through the process it has begun, there is going to be a lot of sorting out, if you will, as to what transmission standards should be set in this country, or perhaps whether one should be set.

That sorting out will deal with the amount of spectrum that is needed for a particular transmission standard, whether there is compatibility between that transmission standard and the current embedded base of equipment and other questions of a similar nature.

Senator PACKWOOD. This is the last question, Mr. Secretary, and then we will move to value-added networks.

I know you are involved in negotiations right now. Can you give me an update on where you are?

Mr. SIKES. We are involved with Japan. The concern is that the Japanese have suddenly decided that they want the international

value-added service providers to use what is known as the CCITT protocol under the International Telecommunication Union.

Our value-added service providers frequently find their principal market niche being in proprietary protocols, these proprietary protocols offering the customers added value.

So to the extent that the Japanese resist our value-added service providers providing those services through proprietary protocols, that is clearly a barrier. We are working aggressively now to assure that does not take place.

Second, in the United Kingdom we have sent back to them our part of an exchange of letters on international value-added networks, our network arrangements. We have certain possible sticking points.

Until we get their response, we will not know, but those relate to the timing of international resale, which is a somewhat arcane issue, and whether a phrase called "full period flat rate" affecting private circuits is too limiting a phrase, which again is a rather arcane issue.

I visited as early as a few days ago with Professor Bryan Carsberg, who heads their Office of Telecommunications and who is clearly one of the thought leaders in the U.K. I strongly believe that we are going to get those issues resolved and that we will not have the same protocol issue with the U.K. that we have had with Japan, and that getting an agreement resolved with the U.K. will help us in our negotiations with Japan.

Senator PACKWOOD. Thank you.

Thank you, Mr. Chairman. I have no more questions.

Senator EXON. Thank you, Senator Packwood.

Ms. Barell, the trade bill that we are trying to get passed requires the U.S. Trade Representative under an amendment offered by Senator Danforth to hold expeditious negotiations—I think that is the right word—with foreign countries to reduce trade barriers for telecommunications equipment.

Do you think that if the trade bill would become law that the Danforth provision might enhance the position of you negotiators in this area?

Ms. BARELL. I think the most important part of the passage of that bill containing a telecom provision would be a very clear signal from the Congress that telecommunications trade is a priority and there needs to be within certain time limits some results.

The administration has already made clear that we do not see the necessity for a specific telecom provision in the omnibus trade bill because, first of all, as you certainly know from the discussions today, there is a great deal of work already going on. We have seen some results from foreign countries, albeit more slowly than we would like to see, and we already have authority under U.S. trade law to take certain actions if we think it is appropriate.

Nevertheless, we think the compromise version that has been drafted by the House and the Senate is an improvement, and we should be able to operate under those provisions, as the bill suggests, to identify priority countries, to negotiate with those countries that do not meet U.S. objectives, and see if we can achieve some results.

Senator EXON. I would like to ask this question of the panel. I am trying to get at the heart of this problem.

In determining the basis for our trade deficit in the telecommunications equipment industry, some people allege it is entirely due to the fact that most all customer premises equipment is now manufactured overseas somewhere. In other words, trade in network equipment basically is not the problem.

Is such a conclusion correct, in your opinion? If not, what are the primary causes of this tremendous imbalance?

Mr. SIKES. I do not think such a conclusion is entirely correct, but it is clearly a significant part of the imbalance.

We do make the higher end customer premises equipment to a large extent in this country, the private branch exchange or PBX being perhaps the best example.

Additionally, there are companies that have increased in recent years, some on-shore manufacturing of customer premises equipment. AT&T took some of its equipment offshore. I think it expanded some of its manufacturing onshore, in Shreveport to be specific.

Northern Telecom, a Canadian company which nonetheless is a large manufacturer of telecommunications equipment in this country, has recently enlarged its facilities in Nashville, Tennessee toward this same end, customer premises equipment.

So I think it is a mixed picture, but I clearly believe that at the lower end where you have rather massive purchases for the reason that Chairman Patrick indicated, that would be largely true; that the bulk of that equipment is either outsourced by U.S. companies that then sell it here, or else it comes in directly from overseas companies.

Senator EXON. Any other elaboration on that by any other members of the panel?

Mr. PATRICK. Senator, I would agree with what Secretary Sikes has indicated. Certainly the CPE market is a significant portion of the revenues that are at issue here, and there has been a large influx of very inexpensive equipment for which there is a large market demand in the United States.

We cannot look to that piece of the puzzle alone. There are a number of other areas where the restrictive practices of a number of foreign administrations are harmful to U.S. interests. I am thinking of core equipment acquisition and procurement policies—core equipment being switches and other equipment of that nature.

Again, as Secretary Sikes indicated, U.S. manufacturing concerns tend to focus on, or at least, one might argue, have a comparative advantage with respect to higher end equipment, more expensive equipment. The acquisition of that equipment sometimes involves complex regulatory questions in foreign countries and, in fact, impediments to the acquisition of U.S. equipment.

So we have to look to the core equipment market as well, and we cannot leave out of the equation in this area generally the question of services. We are now beginning to see some progress in terms of causing foreign administrations to recognize that opening up various services—value-added services, long distance services, basic network services—to competition is very beneficial, and as that process continues, we would hope to see more opportunities for Ameri-

can firms providing those sorts of services in foreign jurisdictions as well.

So there are a whole range of issues that I think contribute to the current imbalance, and I think they can be summarized, as was suggested earlier, by the fact that the United States has the most open market, I would argue, in the world in terms of access to both equipment providers as well as service providers, and that is simply not the case in foreign jurisdictions.

Therefore, we have to attack these issues at every level, and I think that we are making some progress in that regard.

Senator EXON. As I understand it, approximately one-quarter of the annual international telecommunications purchases around the world come from developing countries.

Tell me, in your view how well are U.S. firms competing to supply this equipment?

Have U.S. firms complained to your agencies about competing with foreign firms whose countries subsidize their sales, and are we going to have to do something to have government financing of some type in the future in this whole telecommunications area to meet what I think remains not only unfair trade restrictions in lots of countries but also barriers to our imports, regardless of their cost or what effect they would have on those markets?

What complaints do you hear from American manufacturers in this regard; lots of them or not very many?

Mr. PATRICK. Well, let me take a shot at that and then defer to Secretary Sikes, among others, because the Commerce Department, of course, plays a very direct role in assisting U.S. business in their attempts to secure business opportunities abroad.

But certainly from our perspective, yes, there are a whole range of complaints that we hear. They start with a very basic indisposition among a number of foreign countries to entertain competitive bids at all, in which case you have a barrier to entry right off the bat that is preclusive with respect to participation by foreign concerns.

They range at one extreme from that barrier to entry to more subtle impediments that may involve, for instance, procurement policies and practices that are not open; rules that are not well articulated; practices that do not provide for the participation of would-be competitors in the process of developing rules, which is, of course, something that we allow here; and various regulatory restraints that may favor in some way or another the domestic supplier of equipment over the would-be foreign supplier of that equipment.

So there are a whole range of complaints and concerns, and we have of late in the last several years, I think, begun to be relatively effective in coordinating the efforts of the FCC as well as the various executive branch agencies in addressing those sorts of barriers and impediments on a policy level, which is where the FCC comes in, as well as a commercial level, and we are making some incremental progress.

Mr. SIKES. Let me respond this way. First of all, I think before we look offshore for problems, we also should look here. I frankly think that we have had such a rich domestic market and it has been closed for so long that a number of our companies have not

really looked to the developing world as prime markets except, perhaps, to follow U.S. foreign aid or military alliances.

Now, I think a number of companies are beginning to look more to the developing world, and I certainly, as I generalize, should quickly point out that there are exceptions, that there are companies that for years have looked to the developing world as well as to the developed world.

I think the smaller countries of Europe that do not have quite the size of the domestic market that we have and certainly Japan have been much more export conscious. I think companies like Ericsson of Sweden, Siemens of Germany, NEC of Japan, just to name three, have been much more export conscious.

I think their governments have given them credit assistance, political assistance, technical assistance in the work that they have done in the developing world, and I think we have a responsibility to tie together on a more cohesive basis our trade approach so that we are working with our companies who want to sell in the developing world on a team basis and bring to those companies people who can help in putting together financial packages, the State Department who can help in opening doors, the National Telecommunications and Information Administration, among others, that can help in providing technical assistance to network modernization.

That is precisely what we have set out to do in China with the protocol that was signed literally a month after I began government service, and I think we have made some strides toward doing that.

So hopefully we will find a better future in China than we have had in some of the other developing nations. But it would be those essential reasons that I would assign to the fact that we do not do as well in the developing world as we should.

Senator EXON. Well, you are familiar, I think, to some extent with the significant upturn we have had in the sales of agricultural products overseas. They are subsidized primarily, and we have done probably a little bit better job in promoting those within the past. Maybe, to use your example, we did not have to do a lot of those things when there was a shortage of food around the world.

Do you think that at least in the future we might find it necessary to get into the matter, if not of direct subsidies, of assisting in the financing of the export of some of our equipment to some countries?

I assume none of that is going on to any major sense at the present time. Is it something that we should consider?

Mr. SIKES. I am not familiar with the precise details of it, but I think the President's recommendation of two years ago recommended a war chest of \$100 million to participate in support of the kind of trade that we have been talking about.

But at the same time in the multilateral organizations, and again this is something that Ms. Barell could more adequately speak to, we have been making a strong effort, through the OECD and the initial runup to the GATT Agreement, to eliminate some of these practices. So we have been active in this area.

Ms. BARELL. I think that is true. There have been a number of efforts, both on the multilateral and on the unilateral side to try to

deal with these problems. AID, for example, does provide some funding which, matched with Ex-Im Bank financing, brings some of those interest rates down for U.S. exporters to the point where they can compete.

You are absolutely right that as time goes on the export financing portion of the equipment package or the equipment and services package is becoming more and more important. We recognize that and have taken some steps to assist that area.

As Secretary Sikes has noted, there are a number of efforts, including in the OECD's export credit arrangement and the GATT, where we are working toward an improved Subsidies Code to try to deal with foreign subsidized competition without having to, in essence, empty the U.S. coffers to meet the foreign competition.

Mr. PATRICK. Senator, if I might just add a note to that, I am not conversant with the number of financing mechanisms that may be available, and so I will not speak to that.

But I would like to observe that in our view, and I think it is probably a view that is shared by everyone at this table, the American telecommunications industry is the most sophisticated and technologically advanced industry in the world. It is certainly an industry which has the most experience with dealing with the evolution and the reality of competitive markets, which is, in my view, the way most markets are eventually going to evolve.

I do not think the problem really is money. I certainly for one would not suggest that American industry needs to be subsidized. I think what American industry needs is the opportunity to sell their goods and services in foreign jurisdictions, and that brings us back to the question of policies which restrict open entry and various regulatory impediments to the ability of the U.S. concerns to compete.

If they have a fair opportunity to compete, I think they will do quite well owing to that technological sophistication.

Senator EXON. Just to get your thoughts to try to put all this in perspective, what weight would you give to cheap labor as one of the problems that we are running into in the telecommunications exporting business?

Overall, on balance, is cheap labor overseas 25 percent of the problem, 50 percent of the problem, 75 percent of the problem?

I think we would all agree that "cheap labor" is one of the problems. I am trying to get at how big a problem you think it is as a part of the whole.

Mr. PATRICK. Senator, this is certainly outside my area of immediate expertise, but I will venture some speculation and say that I think it depends on the product that you are talking about.

To answer the question, I could not assign a specific figure to it, but I could say that it depends upon the product. Certainly with respect to CPE handsets—relatively inexpensive handsets—the largest component in terms of value of that product may in fact be labor. Therefore, in that market, labor is going to be a very significant factor. That is why, indeed, we see the influx of tremendous numbers of foreign manufactured pieces of CPE.

I think every country in the world brings to the table comparative advantages and disadvantages. Certainly in the telecommuni-

cations sector the U.S. industry brings to the table significant comparative advantages.

Even if we have a labor base which is slightly more expensive than some of our world competitors, we certainly bring into the situation a great deal of experience and a great deal of advanced technology and patents in this area that I think account for a countervailing comparative advantage.

Senator EXON. Mr. Sikes.

Mr. SIKES. I would offer that cheap labor was a more significant consideration 10 years ago than it is today. I think that with the information component of products expanding and the labor component of products contracting, which clearly is happening, that we are at far less of a disadvantage, being a relatively high cost labor market, than we were 10 years ago.

I think new manufacturing processes have been instrumental in bringing down the labor cost component of a product.

I would also point out that we have our single largest trade deficit in this area, if you want to look at a bilateral deficit as opposed to a multilateral deficit, with Japan. Japan is not a cheap labor country.

Again, I think Canada would come into second place with respect to the bilateral trade balance.

So I do not think that it is a significant problem particularly as we look into the future. I think it has been more of a problem in the past.

Senator EXON. Ms. Barell, would you care to comment? I thought you might want to finish this up.

Ms. BARELL. Well, we have never really done any kind of analysis of that sort. I think USTR's assumption would be the same as that of my colleagues with respect to the importance of the labor component to the so-called lower end of the scale versus the higher end.

We are extremely competitive in that higher end. A lot of the product that is manufactured in the United States now is exported and can compete despite the higher cost of labor in the United States.

Senator EXON. I would say to all members of the panel, it would just seem to me that if it is true that cheap labor is not a major component of our difficulties, then, to use the line of argument that has been advanced here, those who have the technological lead would be the ones that would be coming to the fore.

I would suggest that with the possible exception of the Japanese, I would think that we would have the technological lead over most of the other countries, including the emerging third world countries.

So if that were true, then this would be a time when we would be making some significant strides, rapid recovery if you will, from the trade deficit that we are experiencing not only in telecommunications but in most other areas.

So I guess that I happen to feel that cheap labor, at least in a significant portion of the telecommunications industry, still is a factor. While I suspect that those with superior technology and the investment in superior technology will be the leaders in the future in this area, and I hope it is the United States of America, I still

think there is a considerable period of time in the future when cheap labor is going to have a tremendously important part.

You can get to the place where labor is so cheap that you cannot afford to go to increased technology. I suspect that that may be one of the factors today with many of the developing countries' significant entry into this market.

In any event, that is just a statement of a belief that I have. I may be proven wrong. I hope that we are successful through GATT negotiations to solve these problems. I have less and less confidence as the years go by in this area because it seems to me that the GATT rounds are becoming good talkathons and good places to come up with ideas, but implementing those ideas seems to take a long, long time, if not forever.

That is why when I travel as I do from time to time and talk to other countries, they seem to have less confidence in GATT than we talk about here in the United States here all the time.

Thank you all very much for being here. The Chairman has indicated to me that inadvertently he was tied up on a mark-up of an important piece of legislation that he has over in the Rules Committee and apologizes for not being here for all of the hearing.

I would advise you that we will keep the record open for two weeks, and there will be additional questions that will be asked of you to which we would appreciate your responding to as quickly as possible for the record.

With that, we are adjourned.

[Whereupon, at 10:32 a.m. the hearing adjourned.]

ADDITIONAL ARTICLES, LETTERS, AND STATEMENTS

NORTHERN TELECOM INC.,
Washington, DC, May 3, 1988.

HON. DANIEL K. INOUE,
Chairman, Communications Subcommittee, Committee on Commerce, Science and Transportation, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: We at Northern Telecom would like to respond to certain statements made at your April 19 hearing regarding the U.S.-Canada Free Trade Agreement (FTA) and would appreciate your making this letter and the attachments a part of the hearing record.

The statements which concern us refer to the Bell Canada-Northern Telecom supply agreement. In your opening remarks, you stated that the U.S.-Canada FTA negotiations had mixed results in the telecommunications area: successful with regard to the elimination of tariffs but unsuccessful "... in opening up the procurement practices of the dominant Canadian telephone company in Canada, Bell Canada."

We welcome this opportunity to respond to your comments, Mr. Chairman, because we believe it is imperative that you and other members of the Subcommittee understand that Bell Canada's procurement practices are no different than those of U.S. vertically integrated companies, such as AT&T and GTE. In point of fact, AT&T's and Bell Canada's procurement practices with their "in-house" supplier precisely parallel one another. Since every vertically integrated service provided in the world follows essentially the same purchasing procedures, the issue of the Bell Canada-Northern Telecom supply agreement becomes one of fairness. As pointed out by Deputy Assistant U.S.T.R. Marian Barrell in her testimony, U.S. negotiators failed to obtain a Canadian commitment that open and competitive procurement procedures be established for Bell Canada "... unless the United States is willing to adopt similar procedures for our (U.S.) telecommunications carriers." The U.S. rejected the offer from Canadian negotiators because U.S. companies refused. In other words, U.S. companies want procurement practices imposed in Canada that they are unwilling to have imposed on themselves in the U.S.

In her testimony, Ms. Barrell compared Bell Canada's present structure to that of AT&T's prior to divestiture. Such a comparison is inappropriate. The Canadian and U.S. telecommunications system are similar but there are notable differences which I will outline later in this letter. Regardless of the similarities and differences in the systems, however, the procurement practices of AT&T and Bell Canada are virtually the same. Both are private companies which are government regulated, and both have "in-house" suppliers.

To better frame the supply agreement issue, I should first explain Bell Canada's relationship to Northern Telecom and address some of the differences between the U.S. and Canadian telecommunications markets.

NORTHERN TELECOM AND BELL CANADA

Northern Telecom is the world's largest manufacturer of full digital switching and transmission systems, Canada's largest telecommunications equipment manufacturer, and the second largest telecommunications equipment manufacturer in the United States (second only to AT&T Technologies). The company has about 49,000 employees in the 20 countries in which it has major offices. The vast majority are located in the U.S. and in Canada. Northern Telecom equipment has been installed in over 70 countries around the world.

Recently, there has been much debate in Congress about the impact of foreign investment in the U.S. Northern Telecom stands out as a stellar example of how best to invest in the U.S., primarily because of its commitment to the U.S. economy. The U.S. company, Northern Telecom Inc., was incorporated in 1972 in Delaware and is based in Nashville, Tennessee. The company has over 20,000 employees in 13 manufacturing plants, 13 R&D facilities and in hundreds of sales and services offices across the United States. In 1987, about \$3 billion or 62 percent of Northern Tele-

com's worldwide revenues were generated in the U.S. by sale of product manufactured in the U.S. NTT's U.S. domestic content is as high if not higher than that of AT&T. Few companies have invested so much capital in the construction of U.S. manufacturing and R&D facilities and few companies have been responsible for more U.S. job growth in recent years than Northern Telecom Inc.

Northern Telecom Inc. is a wholly owned subsidiary of Northern Telecom Limited of Canada. Northern Telecom Limited is 52.5 percent owned, and Bell Canada is 100 percent owned, by BCE. BCE is the most broadly held public company in Canada with about 330,000 individual shareholders resident in Canada, the United States, and many other countries. BCE also owns Bell Northern Research, which is Bell Canada's counterpart to AT&T's research arm, AT&T Bell Labs. To compare AT&T's structure with that of Bell Canada, AT&T owns 100 percent of AT&T Technologies, its "in-house" equipment manufacturer, as well as AT&T Bell Labs, its research arm.

I should add that it is inappropriate to consider the purchasing practices of the Bell Operating Companies when analyzing the similarities between Bell Canada's and AT&T's purchasing practices. Vertically integrated telecommunications equipment providers are motivated to offer the lowest price to their related services providers in order to insure protection of the ratepayer, the number one concern of the federal agencies in Canada and the United States which regulate the services providers. Non-vertically integrated services providers share the same motivation. However, the similarity ends there. The Bell Operating Companies are each independent, private companies which are not vertically integrated with an "in-house" supplier. At present, they purchase virtually all of their equipment from outside. This is also true of non-AT&T long distance providers such as MCI and U.S. Sprint.

CANADA'S TELECOMMUNICATIONS SYSTEM

It is equally inappropriate to compare Canada's telecommunications market to that of the United States prior to divestiture, or after divestiture, because, while sharing similarities, the two markets have notable differences.

First, it is important to recognize that the total Canadian telephone system is slightly less than 10 percent the size of the U.S. system—or approximately the size of Pacific Telesis, just one of the U.S.'s seven Bell regional holding companies. While Bell Canada is the largest telecommunications company in Canada, it is in no way comparable to the size of AT&T or GTE in the United States.

The total Canadian telephone system was developed by Bell Canada, and a number of other Canadian telephone companies to meet the telecommunications needs of a vast nation with a sparse population. While Canada is larger than the United States geographically, it has only one-tenth the population. Telecommunications services in Canada evolved in parallel with telecommunications services in the United States, and the Canadian network has historically been part of a North American telecommunications network based on common network design and development.

Bell Canada, together with its subsidiaries, provides telecommunications services principally in the provinces of Quebec, Ontario and the Northwest Territories—about half of the Canadian market. The balance of Canada's telecommunications services is largely provided by 123 other privately, municipally and provincially owned telephone companies—with the majority being privately owned. Six companies in Canada operate almost 90 percent of the Canadian telephone system—Bell Canada, British Columbia Telephone Company (in which GTE Corporation of the U.S. has controlling interest), Alberta Government Telephones, Saskatchewan Telecommunications, Manitoba Telephone System and Edmonton Telephones.

Provincial governments regulate and manage their provincial telephone companies with varied procedures. However, it is the practice of provincial companies normally to obtain at least two bidders on major purchasing contracts; and, to my knowledge, no provincial telephone company has a policy to restrict equipment purchasing to any one company.

With regard to market share, it is interesting to note that AT&T has about 75 percent of the long distance market in the U.S. which, of course, is ten times the size of the Canadian market. MCI, U.S. Sprint and other common carriers share the remainder of the U.S. long distance market.

Canada operates its long distance services differently than does the U.S. Long distance toll services within Canada and between the operating territories of the individual telephone companies are provided by the member companies of Telecom Canada, which is an association comprising nine Canadian telephone operating companies—including Bell Canada and GTE-controlled British Columbia Telephone—and Telesat Canada. Financial contributions to Telecom Canada are based on the

revenues from Telecom Canada services, which are generally billed by the territory member. Control is based on one vote for each member, and decisions must be unanimous. Telecom Canada also provides cross-border services to the United States.

BELL CANADA-NORTHERN TELECOM SUPPLY AGREEMENT

While there are differences in the structures of the U.S. and Canadian telecommunications markets, the procurement practices of Bell Canada, AT&T and other vertically integrated telecommunications services providers closely parallel one another. The Bell Canada-Northern Telecom supply agreement poses no more of a trade barrier than does the procurement arrangement between AT&T Communications and AT&T Technologies.

The fact that the Canadian agreement so closely parallels the AT&T arrangement is not so surprising in that the Bell Canada-Northern Telecom supply agreement was patterned after the AT&T model when AT&T and Western Electric (now AT&T Technologies) had financial interests in both Bell Canada and what was then known as Northern Electric.

The importance in trade terms of the Bell Canada-Northern Telecom supply agreement has been grossly overstated. It is an inter-company arrangement which allows, not obligates, Bell Canada to purchase from its affiliated manufacturing company telephone network equipment at a price not more than the lowest price sold elsewhere in Canada. In fact, in Canada, a federal regulatory agency ensures that Bell Canada pays Northern Telecom at prices as low as or lower than prices paid by any other customer in Canada for comparable equipment.

Similar inter-company supply agreements are far from uncommon; in fact, they follow the normal commercial practices of the industry. Northern Telecom has supply and distribution agreements with many of its U.S. and Canadian telephone company customers. This is also true of AT&T and other Northern Telecom competitors.

There is no "captive supplier" relationship between Northern Telecom and Bell Canada. Northern Telecom's sales to Bell Canada in 1987 were \$1.09 billion. This figure represents about 22.4 percent of Northern Telecom Limited's global sales. In the same year, AT&T Technologies sold some \$3.86 billion to its direct affiliates amounting to 34.9 percent of its global sales. Attached are charts contrasting sales figures over a four-year period.

To further compare Bell Canada's inter-company purchasing practices with those of AT&T, it should be noted that the entire AT&T long distance network is fitted exclusively with switches from AT&T's manufacturing arm, AT&T technologies. AT&T has announced a \$3 billion procurement budget for the next three years during which time they intend to purchase 99 new digital switches to replace analog switches presently in their system. It would be surprising if they were to procure any of these switches competitively, although any changes proposed to the U.S.-Canada FTA should apply to AT&T's procurement as well as to Bell Canada purchases.

While contrasting supplier relationships in the United States and Canada in terms of market access, it should also be noted that Canada permits Canadian telephone companies to be foreign owned. For example, GTE and its subsidiaries have controlling interest in Quebec Telephone and in British Columbia Telephone, the second largest local services provider in Canada. Moreover, British Columbia Telephone is a member of the consortium which provides long distance services in Canada. AT&T also owns a small international carrier, Eastern Telephone & Telegraph Company. It is not possible for a Canadian-controlled company to own telephone companies in the U.S. because the U.S. Federal Communications Act of 1934 limits foreign ownership of domestic telephone companies (see 47 U.S.C. § 310). This market access characteristic alone makes it possible to conclude that the Canadian telecommunications market is more open than the U.S. market.

CONCLUSION

In closing, Mr. Chairman, let me reiterate that U.S. telecommunications companies who characterize the Bell Canada-Northern Telecom supply agreement as a trade barrier for competitive reasons themselves refused to accept an offer by Canadian FTA negotiators that federal procurement policy be imposed on telecommunications services providers on both sides of the border.

Finally, it is of interest to note that, while Northern Telecom makes in the U.S. what it sells in the U.S., AT&T manufactures in the U.S. everything it sells in Canada. They have no manufacturing plants or R&D facilities in Canada and their

employment is limited to sales and services personnel. Northern Telecom is, in fact, a U.S. company that happens to be owned by Canadians.

Mr. Chairman, Northern Telecom supports the U.S.-Canada FTA. We have long been on record in favor of the elimination of tariffs on both sides of the border, as well as the abolishment of Buy Canada and Buy American laws. We believe the FTA is an important first step toward improved free and open trade between the two great nations of Canada and the U.S. We support open competitive telecommunications markets globally, but we believe market access provisions negotiated bilaterally should fall equally on both sides. The competitive coalition is encouraging Congress to rewrite these negotiated provisions to fall unequally on one side. We urge you to resist.

I would be pleased to provide you and other members of the Subcommittee with any additional information or answer any questions which you may have. Please do not hesitate to call on me if I can be of assistance.

Sincerely,

NORMAN L. DOBYNS,
Vice-President, Public Affairs.

NORTHERN TELECOM INC.,
Washington, DC, May 5, 1988.

HON. DANIEL K. INOUE,
Chairman, Subcommittee on Communications, Senate Committee on Commerce, Science and Transportation, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: At the April 19, 1988 hearing on international telecommunications trade policy before the Senate Communications Subcommittee, Deputy Assistant U.S.T.R. Marian Barell was asked to provide a written response to additional questions.

For your information and consideration, attached is a copy of the responses Northern Telecom would make to those questions relating to the U.S.-Canada Free Trade Agreement negotiations on the Bell Canada procurement issue.

Should you have any questions or would like to have additional information, please do not hesitate to call.

Sincerely yours,

NORMAN L. DOBYNS,
Vice-President, Public Affairs.

Enclosures.

Question 1. In the Free Trade Agreement, the U.S. was unsuccessful in opening procurement to Bell Canada. The Canadians have argued that the relationship between Northern Telecom and Bell Canada is similar to that between Western Electric and AT&T, yet the U.S. did not offer to have a similar open procurement arrangement for AT&T. Do you believe the situations of Bell Canada and AT&T are similar? What percentage of equipment purchases does Bell Canada make from Northern Telecom and AT&T from Western Electric?

Answer 1. The procurement arrangements between Bell Canada and AT&T and their manufacturing arms are similar to those of vertically integrated companies throughout the world. AT&T's and Bell Canada's procurement practices with their in-house suppliers precisely parallel one another.

The Bell Canada-Northern Telecom supply agreement poses no more of a trade barrier than does the procurement arrangement between AT&T Communications and AT&T Technologies (formerly Western Electric).

The fact that the Canadian agreement so closely parallels the AT&T arrangement is not so surprising in that the Bell Canada-Northern Telecom supply agreement was patterned after the AT&T model when AT&T and Western Electric had financial interests in both Bell Canada and what was then known as Northern Electric.

The importance of the Bell Canada-Northern Telecom supply agreement has been grossly overstated. It is an inter-company arrangement which allows, not obligates, Bell Canada to purchase from its affiliated manufacturing company telephone network equipment at a price not more than the lowest price sold elsewhere in Canada. In fact, in Canada, a federal regulatory agency ensures that Bell Canada pays Northern Telecom at prices as low or lower than prices paid by any other consumer in Canada for comparable equipment.

Inter-company supply agreements are far from uncommon. Following the normal commercial practices on the industry, Northern Telecom has supply and distribution agreements with many of its U.S. and Canadian telephone company customers. This is also true of AT&T and other Northern Telecom competitors.

There is no "captive supplier" relationship between Northern Telecom and Bell Canada. Northern Telecom's sales to Bell Canada in 1987 were \$1.09 billion. This figure represents about 22.4 percent of Northern Telecom Limited's global sales. In the same year, AT&T Technologies sold some \$3.86 billion to its direct affiliates amounting to 34.9 percent of its global sales. Attached are charts comparing figures over a four-year period.

To further compare Bell Canada's inter-company purchasing practices with those of AT&T, it should be noted that the entire AT&T long distance network is fitted exclusively with switches from AT&T's manufacturing arm, AT&T Technologies. AT&T has announced a \$3 billion procurement budget for the next three years during which time they intend to purchase 99 new digital switches to replace analog switches presently in their system. It would be surprising if they were to procure any of these switches competitively, but any change proposed for Bell Canada in the FTA should also apply to this type of procurement in the U.S.

While contrasting supplier relationships in the United States and Canada in terms of market access, it should also be noted that Canada permits Canadian telephone companies to be foreign-owned. For example, GTE and its subsidiaries have controlling interest in Quebec Telephone and in British Columbia Telephone, the second largest local services provider in Canada. Moreover, British Columbia Telephone is a member of the consortium which provides long distance services in Canada. AT&T also owns a small international carrier, Eastern Telephone & Telegraph Company. It is not possible for a Canadian-controlled company to own telephone companies in the U.S. because the U.S. Federal Communications Act of 1934 limits foreign ownership of domestic telephone companies (see 47 U.S.C. § 310). For this reason alone, it is possible to conclude that telecommunications market access in Canada is more open than in the U.S.

The issue of the Bell Canada-Northern Telecom supply agreement is one of fairness. As pointed out by Deputy Assistant U.S.T.R. Marian Barell in her testimony, U.S. negotiators failed to obtain a Canadian commitment that open and competitive procurement procedures be established for Bell Canada "... unless the United States was willing to adopt similar procedures for our (U.S.) telecommunications carriers."

The U.S. turned down this reciprocal offer from Canadian negotiators because U.S. companies refused. In other words, U.S. companies want procurement practices imposed on others that they are unwilling to have imposed on themselves.

Question 2. Are Bell Canada's operations similar to that of the post divestiture AT&T or the pre-divestiture AT&T? If it is similar to the latter, the equipment purchases of the Bell Operating Companies must also be considered. What percentages of their equipment comes from Western Electric? From other suppliers?

Answer 2. It is inappropriate to compare Canada's telecommunications market to that of the United States prior to divestiture or after divestiture because, while sharing similarities, the two markets have notable differences.

It is important to recognize that the Canadian telephone system is slightly less than ten percent the size of the U.S. system—or approximately the size of Pacific Telesis, just one of the seven Bell regional holding companies. While Bell Canada is the largest telecommunications company in Canada, it is considerably smaller than AT&T or GTE in the United States.

The total Canadian telephone system was developed by Bell Canada and a number of other Canadian telephone companies to meet the telecommunications needs of a vast nation with a sparse population. While Canada is larger than the United States geographically, it has only one-tenth the population. Telecommunications services in Canada evolved in parallel with telecommunications services in the United States, and the Canadian network has historically been part of a North American telecommunications network based on common network design and development.

Bell Canada together with its subsidiaries provides telecommunications services principally in the provinces of Quebec, Ontario and the Northwest Territories—about half of the Canadian market. The balance of Canada's telecommunications services is largely provided by 123 other privately, municipally and provincially owned telephone companies—with the majority being privately owned. Six companies in Canada operate almost 90 percent of the Canadian telephone system—Bell Canada, British Columbia Telephone Company (in which GTE Corporation has controlling interest), Alberta Government Telephones, Saskatchewan Telecommunications, Manitoba Telephone System and Edmonton Telephones.

Provincial governments regulate and manage their provincial telephone companies with varied procedures. However, it is the practice of provincial companies normally to obtain at least two bidders on major purchasing contracts; and no provin-

cial telephone company has a policy to restrict equipment purchasing to any one company.

With regard to market share, it is interesting to note that AT&T has about 75 percent of the long distance market in the U.S. MCI, U.S. Sprint and other common carriers share the remainder of that market.

Canada operates its long distance services differently than does the U.S. Long distance toll services within Canada and between the operating territories of the individual telephone companies are provided by the member companies of Telecom Canada which is an association comprising nine Canadian telephone operating companies—including Bell Canada and GTE-controlled British Columbia Telephone—and Telesat Canada. Financial contributions to Telecom Canada are based on the revenues from Telecom Canada services, which are generally billed by the territory member. Control is based on one vote for each member, and decisions must be unanimous. Telecom Canada provides crossborder services to the United States.

It is inappropriate to consider the purchasing practices of the Bell Operating Companies when analyzing the similarities between Bell Canada's and AT&T purchasing practices. Vertically integrated telecommunications equipment providers are motivated to offer the lowest price to their related services providers in order to ensure protection of the ratepayer, the number one concern of the federal agencies in Canada and the United States which regulate the services providers. Non-vertically integrated services providers share the same motivation. However, the similarity ends there. The Bell Operating Companies are each independent, private companies which are not vertically integrated with an in-house supplier. At present, they purchase virtually all of their equipment from outside. (This is also true of non-AT&T long distance providers such as MCI and U.S. Sprint.)

Question 3. The Canadians also argue that Northern Telecom has made the effort to manufacture equipment in the U.S., while U.S. firms propose to sell only U.S. made goods in Canada. Do you believe this fact deserves significant weight?

Answer 3. Northern Telecom's significant U.S. presence vis-a-vis AT&T's lack of a Canadian presence does deserve significant weight. A revealing way to phrase the question might be: "How would the U.S. Government respond to complaints from the Canadian Government that Northern Telecom is unable to penetrate the U.S. telecommunications market—if it exported from Canada every piece of product it sold here and maintained not one manufacturing or R&D facility in the U.S.?"

It is unrealistic for U.S. lawmakers to expect foreign-owned firms to make a commitment to the U.S. economy and not expect foreign governments to want the same from U.S. firms. U.S. firms seeking market access in Canada should commit resources to the Canadian market—just as Northern Telecom has done in the U.S.

There has been much debate within the U.S. Government over the impact on the U.S. economy of foreign investment and excessive imports leading to a large trade deficit. Northern Telecom is a stellar example of foreign investment which contributes billions of dollars to the U.S. economy and positively contributes to the U.S. trade balance.

Northern Telecom entered the U.S. market, determined to demonstrate a commitment to this country's economy. Northern Telecom Inc. was incorporated in 1972 in Delaware and is based in Nashville, Tennessee. Northern Telecom committed millions of dollars to its goal of establishing a U.S. presence and selling its state of the art and highly competitive products to its U.S. customers from its U.S. base. It is a goal which is not reached overnight, as any successful company knows. Today the company has over 20,000 employees in 13 manufacturing plants, 13 R&D facilities and in hundreds of sales and services offices across the United States. In 1987, about \$3 billion or 62 percent of Northern Telecom's worldwide revenues were generated in the U.S. by sale of products manufactured in the U.S. NTT's U.S. domestic content is as high if not higher than that of AT&T. Few companies have invested so much capital in the construction of U.S. manufacturing and R&D facilities and few companies have been responsible for more U.S. job growth in recent years than Northern Telecom Inc. In actual fact, Northern Telecom is a U.S. company that happens to be owned by Canadians.

In contrast, AT&T had barely entered the Canadian market following the 1984 divestiture when it began emphasizing international sales. Even today, the company has only sales and services offices in Canada and exports from the U.S. all of the product it sells there.

Question 4. In the Free Trade Agreement, the U.S. was successful in achieving its goal on the elimination of tariffs over a ten year period. How much will this improve our telecommunications trade balance with Canada? Will any value to the U.S. be decreased because we did not achieve our open procurement objective?

Answer 4. With the elimination of tariffs provided for under the proposed FTA, the U.S. trade balance in telecommunications equipment with Canada should improve since Canada offers U.S. manufacturers the second largest, fastest growing market for U.S. goods and services. Canada is potentially the largest U.S. export market for telecommunications equipment. With the reduction of relatively higher Canadian tariffs combined with the easing of restrictions in investment and buy national policies, trade is likely to expand. The similarity in language, business practices and regulatory and economic institutions contribute to easier and faster accessibility for U.S. firms to the Canadian market. The reduction of tariffs will afford firms in the U.S. new investment, production and market access opportunities. The fact that the procurement objective sought by the U.S. Government was not achieved will not decrease the value gained by U.S. firms in eliminating tariffs. U.S. companies should invest in aggressive marketing in Canada, accompanied by significant resource commitments to the Canadian market.

STATEMENT OF NYNEX CORPORATION

NYNEX Corporation appreciates this opportunity to submit comments on international telecommunications policy and trade before the Communications Subcommittee, Committee on Commerce, Science, and Transportation. By way of introduction, NYNEX Corporation provides information products and services to a diverse base of customers nationally and internationally and provides telecommunications services to the Northeast portion of the United State. It also offers cellular mobile telephone services, markets information systems and products, publishes directories, and provides computer software and international marketing services.

Telecommunications has long been recognized as the center of economic change and growth. Development of a nation's economy is inextricably linked with the growth and innovation of its telecommunications industry. As our world becomes a global economy, these forces become more dynamic and important.

Much has been said about the United States telecommunications industry being of central importance to our international competitiveness. The Office of the United States Trade Representative has remarked that "by any measure, we are the world's leader in the production, applications and use of telecommunications equipment and services."

Certainly, the United States has been at the forefront in advocating a competitive telecommunications policy in both telecommunications equipment and services. Recent indicators suggest that our real competitiveness has been challenged as the telecommunications equipment trade deficit and trade debate have highlighted. These negative circumstances deserve our nation's attention.

Equally important are the changes in the structure of the U.S. economy, particularly the services sector, which also merit leadership by our nation's policymakers. As the services industries become the dominant sector of America's economy, replacing manufacturing as its number one revenue producer, our ability to promote trade in services, including trade in telecommunications services, will only enhance our role as a world leader and serve to narrow our telecommunications trade deficit.

A glance at recent U.S. employment figures demonstrate the dramatic shift from a manufacturing to services economy. As of 1984, employment in the services sector had increased by 25 percent since 1950, with 73 percent of U.S. employment concentrated in the services sector. Two-thirds of that number were reported to be connected in one way or another with the information industry. Furthermore, by the year 2000, only 15 percent of all employment in the United States is expected to be devoted to the manufacture of goods.

Noteworthy as well is that our top U.S. trading partners also have over half their domestic populations employed in services industries. Increasingly, a country's comparative advantage will be measured by its ability to utilize the new service and information technology.

Our trade negotiators have realized this change in economic structure. Services have become increasingly important to bilateral and multilateral trade negotiations as the recent U.S.-Canada Free Trade Agreement and the ongoing Uruguay Round discussions indicate. Each has targeted services as an issue for discussion, and in the case of the U.S. Canada FTA, an individual agreement was reached on trade in telecommunications services.

Countries worldwide are recongizing the need to liberalize their telecommunications services markets in order to maximize trade and meet user demands. Recent actions by the United Kingdom, Federal Republic of Germany, and the Netherlands

as well as proposed legislation outlined in the European Community's Green Paper are but a few examples.

The United States has been at the policy forefront and taken the international lead to promote trade in telecommunications services.

For example, in 1987, the Federal Communications Commission (FCC) began proceedings which resulted in promoting AT&T's international telecommunications services competitiveness by allowing some circuit migration to cable from satellite and moving capital conveyance prices from strict net book value to market based prices.

The FCC also relaxed its rules regarding international telecommunications facilities in order to promote greater trade. For example, the Commission now allows any international carrier or group of carriers to apply for authorization of new earth stations that operate within INTELSAT's global communications satellite systems.

In another step to promote international competition, the FCC decided that the establishment of separate satellite systems would provide substantial benefits to users of international satellite services. Separate systems would also stimulate technological innovation and service development, improve network efficiencies, reduce user costs, and create new business and trade opportunities.

The FCC has also granted cable landing licenses to private companies. The FCC concluded that the introduction of alternative private cable systems in which capacity will be sold or leased on a non-common carrier basis would introduce more meaningful competition in transmission facilities. It also concluded that it would further stimulate technology and service development to the benefit of international communications users.

One such cable system that is now being developed is the Private TransAtlantic Telecommunications System, or "P-TAT." P-TAT represents a joint venture between three dynamic entities: Cable and Wireless, the United Kingdom's international operator of telecommunications services; Telecom Eireann, Ireland's international telecommunications provider; and NYNEX, the American partner.

NYNEX's participation in this project, which is contingent upon approval by the U.S. District Court, will enable the United States to be a key player in the development of a vital international communications channel.

When fully implemented, P-TAT will consist of two fiber optic cables which will run off the New Jersey coast to London, with spurs to Ireland and Bermuda. It will link two of the world's leading financial and banking capitals, New York and London, and will also serve as a catalyst in developing Ireland's rapidly evolving markets.

P-TAT will not only enhance U.S. competitive opportunities abroad, but will be a value to our strategic foreign trading partners by allowing them to obtain superlative products and services of American corporations.

NYNEX wholeheartedly endorses the U.S. position to promote trade in telecommunications services. We support the leadership role the U.S. has taken in advancing a more competitive international services and facilities environment to meet the ever-growing need of users in a global economy.

The United States clearly has the potential to be the vanguard of the Information Age. However, we must actively pursue opportunities in international markets to realize that potential.

